

ENVIRONMENTAL REVIEW COMMITTEE REPORT

ERC MEETING DATE: January 7, 2013

Project Name: Fieldbrook Commons

Project Number: LUA12-001, ECF, PPUD

Project Manager: Vanessa Dolbee, Senior Planner

Owner/Applicant: PNW Holdings, LLC., 9725 SE 36th St., Suite 214, Mercer Island, WA 98040

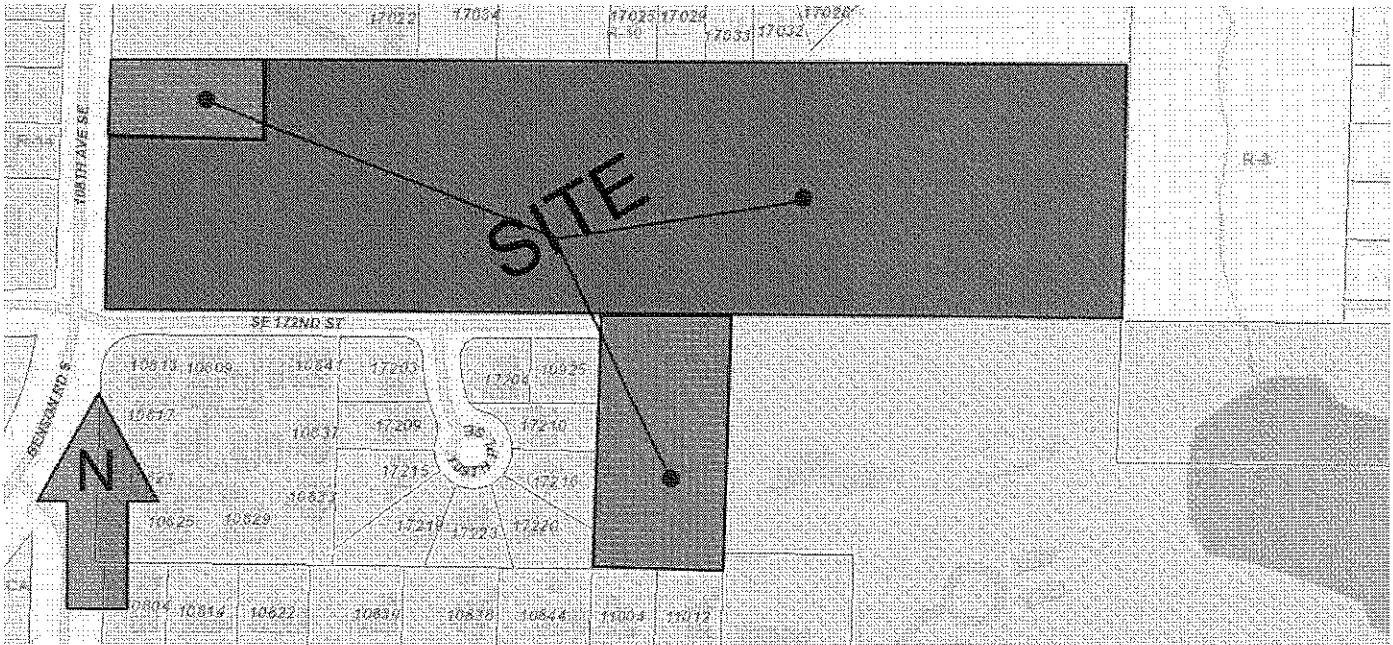
Contact: Justin Lagers, PNW Holdings, LLC, 9725 SE 36th St., Suite 214, Mercer Island, WA 98040

Project Location: 17040 - 108th Avenue SE, Renton WA, 98055

Project Summary: The applicant is requesting SEPA Environmental Review and a Preliminary Planned Urban Development for the construction of a multi-family development containing 162 units in the Residential 14 (R-14) units per net acre zone. Bonus density has been requested to provide for the 162 units resulting in a density of 17.90 units per acre. The development would be comprised of 12 separate multi-family residential structures and one recreation building, totaling 180,934 square feet. The subject site is located at 17040 108th Avenue SE and is comprised of three parcels totaling 10.77 acres. All parcels are currently undeveloped. The site would be accessed at three locations along SE 172nd Street and one emergency vehicle only access off of 108th Avenue SE. The subject site contains six wetlands and is currently forested. The applicant has proposed to preserve the wetlands and forested area along the eastern portion of the site and develop the remainder of the site by filling three wetlands and protecting 31 existing trees. The applicant submitted a wetland report and mitigation plan which has undergone secondary review. Additional studies include a stormwater report, traffic study, geotechnical report, and an arborist report. The proposed development would result in approximately 17,361 cubic yards of cut and 12,479 cubic yards of fill to be balanced across the site. Frontage improvements are proposed along 108th Avenue SE and SE 172nd Street, including 24,526 square feet of dedicated public right-of-way.

Exist. Bldg. Area SF:	None	Proposed New Bldg. Area (footprint):	71,939 SF
		Proposed New Bldg. Area (gross):	180,934 SF
Site Area:	469,158 SF (10.77 acres)	Total Building Area GSF:	180,934 SF

STAFF RECOMMENDATION: Staff Recommends that the Environmental Review Committee issue a Determination of Non-Significance - Mitigated (DNS-M).



Project Location Map

PART ONE: PROJECT DESCRIPTION / BACKGROUND

The applicant is requesting SEPA Environmental Review and a Preliminary Planned Urban Development for the construction of a multi-family development containing 162 units in the Residential 14 (R-14) units per net acre zone. Bonus density has been requested to provide for the 162 units resulting in a density of 17.90 units per acre. The development would be comprised of 12 separate multi-family residential structures and one recreation building, totaling 180,934 square feet of building area. Each separate multi-family building is labeled A – N (excluding F) each containing a variety of unit types. The smallest building (BLDG. A) would be 10,251 square feet, contain 9 units and would be 27.19 feet high and the largest building (BLDG. J) would be 18,507 square feet, contain 17 units and would be 35.27 feet high. For detailed building unit break down and square footages see Exhibit 3. In addition, the applicant has proposed to provide a 2,400 square foot recreation center for the common use of the future residents of the apartment development. The recreation center would include a fitness center, outdoor BBQ, fire pit, outdoor living room, internal kitchen and gathering hall for meetings, social activities and private party rentals.

The subject site is located at 17040 108th Avenue SE and is comprised of three parcels totaling 10.77 acres. All parcels are currently undeveloped with the exception of one small dilapidated shack located in the center of the site. The site is primarily in a forested condition. North of the site is property zoned R-14, R-10 and R-8 comprised primarily of single-family residential development. To the east is property zoned R-14 and R-8 currently undeveloped. To the south is property zoned R-14 developed with a mix of multi-family and single-family development. To the west is property zoned R-14 and CA developed with single-family residential and a day care facility.

The site would be accessed at three locations along SE 172nd Street and one emergency vehicle only access off of 108th Avenue SE. Frontage improvements are proposed along 108th Avenue SE and SE 172nd Street, including approximately 24,526 square feet of dedicated public right-of-way. An internal vehicular street system is proposed to provide vehicular access to each unit. Parking is provided both in garages and as surface parking along the internal circulation system.

Pursuant to the City's Critical Areas Maps, wetlands and coal mine hazards have been identified on the subject property. With the application the applicant submitted a Critical Areas report, a Habitat Assessment, and a Geotechnical Report with a Coal Mine Hazard Assessment. Six wetlands have been identified and delineated on the subject site. The applicant has proposed to preserve the wetlands and forested area along the eastern portion of the site and develop the remainder of the site by filling three wetlands and protecting 31 existing trees. Due to the proposal to fill three wetlands, the City has required that the provided studies undergo an Independent Secondary Review process which was completed by Otak prior to moving forward with the project's review. The final secondary review report was completed by Otak on June 13, 2012.

The proposed development would result in approximately 17,361 cubic yards of cut and 12,479 cubic yards of fill to be balanced across the site.

PART TWO: ENVIRONMENTAL REVIEW

In compliance with RCW 43.21C.240, the following environmental (SEPA) review addresses only those project impacts that are not adequately addressed under existing development standards and environmental regulations.

A. Environmental Threshold Recommendation

Based on analysis of probable impacts from the proposal, staff recommends that the Responsible Officials:

Issue a DNS-M with a 14-day Appeal Period.

B. Mitigation Measures

1. The stormwater line shall be re-designed to reduce the number of trees required to be removed for its installation; and, that trees 2089, 2185, 2184, 2183, and 2193 be retained. Alignment of the new stormwater discharge shall be reviewed and approved by the Current Planning Project Manager and the Plan Review Project Manager prior to Final PUD Approval.
2. The applicant shall provide a final Wetland Mitigation Plan compliant with RMC 4-8-120D.23 and recommendation included in the Otak's secondary review memorandums dated February 29, 2012 and June 13, 2012 for final review and approval by the Current Planning Project Manager prior to Final PUD approval.
3. The applicant shall provide the City documentation of State and Federal required permits for the filling of the three wetlands prior to approval of the Final PUD.
4. The applicant shall provide a final mitigation planting plan for review and approval by the Current Planning Project Manager prior to Final PUD approval.
5. All trees identified in the final mitigation planting plan shall be a minimum size of two inches in caliper for deciduous trees or 6 feet in height for coniferous trees.
6. Temporary construction impacts shall not impact significant trees located in existing wetland buffers, including but not limited to the preservation of the following trees, 2086, 2088, 2400, 2399, 2108, 2330, and 2186.
7. Staff recommends that the trail be designed, to the extent feasible, over the top of the stormwater line, to avoid trees, in the outermost extent of the existing buffers on the subject site, and constructed of permeable materials. A final trail plan shall be provided to the City of Renton Current Planning Project Manager for review and approval prior to Final PUD approval.
8. The applicant shall be required to comply with the recommendations included in the Geotechnical Engineering Study prepared for the Fieldbrook Commons project, by Earth Solutions NW LLC, dated October 31, 2011.
9. The applicant shall be required to comply with the recommendations included in the Geotechnical Engineering Report, Prepared for Wagner Property, LLC, by Cornerstone Geotechnical, Inc., dated October 11, 2006.
10. An additional coal mine assessment review shall be completed by a qualified geotechnical professional verifying that the weight of a waste management truck, Fire department ladder truck and other vehicles parking in the area is not likely to result in subsidence at this location and the proposed parking/trash facility would be an appropriate use located within the hazard area. This assessment shall be reviewed and approved by the Current Planning Project Manager, prior to Final PUD approval.

C. Exhibits

Exhibit 1	Neighborhood Map
Exhibit 2	Parcel Identification Map
Exhibit 3	Preliminary Site Plan
Exhibit 4	Civil Plans Cover Sheet
Exhibit 5	Generalized Utilities Plan, 4 sheets, P2 – P5
Exhibit 6	Conceptual Grading Plan, 4 sheets, P6 – P9
Exhibit 7	Drainage Control Plan, 4 sheets, P10 – P13
Exhibit 8	Wetland Delineation Map
Exhibit 9	Conceptual Mitigation and Grading Plan
Exhibit 10	Final Mitigation Planting Plan
Exhibit 11	Preliminary Landscape Plan, 5 sheets, L-1 – L-5
Exhibit 12	Preliminary Tree Inventory Plan, 4 sheets, TR-1 – TR-4
Exhibit 13	Public Comments, Katrina Garrison, Sylva Jean Coppock, Donna Hart, Terestia Tamayao, and Dan Miles
Exhibit 14	Department of Ecology Comments
Exhibit 15	Muckleshoot Indian Tribe Fisheries Division Comments
Exhibit 16	DOE Comment Clarification
Exhibit 17	WDFW Wetland Rating Form
Exhibit 18	Drainage Basins
Exhibit 19	Sewall Wetland Consulting, Inc. Critical Areas Report, November 8, 2011
Exhibit 20	Sewall Wetland Consulting, Inc. Habitat Study, December 14, 2011
Exhibit 21	Sewall Wetland Consulting, Inc. Stream Study, December 14, 2011
Exhibit 22	Otak, Critical Areas Review of Fieldbrook Commons Project, February 29, 2012
Exhibit 23	Sewall Wetland Consulting, Inc. Response to Otak's Critical Areas Review, March 16, 2012
Exhibit 24	Sewall Wetland Consulting, Inc. Response to Otak's Critical Areas Review, April 10, 2012
Exhibit 25	Otak, Fieldbrook Commons Second Review, June 13, 2012
Exhibit 26	Sewall Wetland Consulting, Inc. Response to Otak's Critical Areas Review, September 17, 2012

D. Environmental Impacts

The Proposal was circulated and reviewed by various City Departments and Divisions to determine whether the applicant has adequately identified and addressed environmental impacts anticipated to occur in conjunction with the proposed development. Staff reviewers have identified that the proposal is likely to have the following probable impacts:

1. Earth

Impacts: The existing site topography generally undulates between a high of about 436 feet to a low of 420 feet mean sea level. The site is primarily forested and contains wetlands throughout. In addition, a medium coal mine hazard has been identified along the southern portion of the “dog leg” lot, identified as parcel A herein.

The applicant submitted a Geotechnical Engineering Study ("Geo-tech") prepared for the Fieldbrook Commons project by Earth Solutions NW LLC, dated October 31, 2011. However, at the time of preparation of this report the developer had not acquired parcel A, as such parcel A is not addressed in the provided report. The provided Geo-tech evaluated seven test pits located across the site. Based on the test pits in general the site soils consist primarily of firm sandy glacial till deposits. However, two areas of fill were encountered during their fieldwork, one to the extreme east of the site and a second along the western site frontage. Topsoil was encountered at all test pit locations extending to depths of between about four to eight inches. Perched groundwater was observed within the fill zones at several test pit locations during the fieldwork. The report concludes that construction of the proposed residential development is feasible from a geotechnical standpoint and competent soils suitable for support of foundations should be encountered at depths of between one to three feet below existing grades. The report continues to include recommendations for site preparation and earthwork, wet season grading, in-situ soils, imported soils, structural fill, wetland filling, foundations, seismic design considerations, slab-on-grade floors, retaining walls, drainage, infiltration, excavations and slopes, utility support and trench backfill, and pavement sections. Based on the recommendations included in the provided report, staff recommends as a mitigation measure that the applicant comply with the recommendations included in the provided Geotechnical Report prepared by Earth Solutions NW LLC.

Parcel A had a previous development proposed for the development of single-family homes. The applicant for the subject project submitted the Geotechnical Engineering Report prepared for the Wagner Short Plat to address the development of the proposed multi-family units on Parcel A. In addition, the applicant submitted the Coal Mine Hazard Assessment prepared for the same short plat with the application. The two additional reports submitted are as follows; Geotechnical Engineering Report, prepared by Cornerstone Geotechnical, Inc. dated October 11, 2006 and a Coal Mine Hazard Evaluation prepared by Icicle Creek Engineers, dated September 12, 2007.

The Geotechnical Engineering Report prepared by Cornerstone Geotechnical, Inc. states that parcel A is generally level and the estimated elevation change across the site is less than 10 feet. The site explorations conducted by Cornerstone Geotechnical, Inc. indicated the site is comprised of variable materials, consisting of silty sand with varying amounts of gravel, consistent with glacial till, as well as weathered sandstone, siltstone, and coal seams, consistent with the Renton Formation. Cornerstone Geotechnical, Inc. observed light groundwater seepage approximately 11.5 feet below the existing grade. They expect that a perched water condition may develop during the wetter times of the year at, or near the contact between the weathered and unweathered glacial till layers, and within sand interbeds in weathered areas of the Renton Formation.

The Cornerstone Geotechnical Report indicated that parcel A has a low potential for liquefaction and amplification of ground motion. Cornerstone Geotechnical, Inc. concludes the site is suitable for development; the underlying medium dense to very dense native soil deposit area is capable of supporting the planned structures and pavements. Staff recommends the project proponent follow the recommendations presented in the geotechnical study regarding site preparation (including vegetation removal and subgrade compacting), structural fill (including density tests, fill materials, and fill placement), cut slope stability (including slope height, incline and erosion protection) foundation support (including placement and dimensions of footings, bearing pressure, lateral resistance and foundation settlement tolerance), slab-on-grade design (including

construction support and capillary break layer), Erosion and Sediment Control, Drainage, Utilities, and Pavement installation.

The site is underlain with the Upper and Lower Splits of the Springbrook No. 3 Coal Seam. Icicle Creek Engineers conducted a drilling test on August 23, 2007, boring to a depth of about 71.5 feet. The boring results indicated soft drilling resistance; the blow count data and rock samples indicated the boring encountered caved rock from a depth of 23 feet to 67 feet (44-foot thickness). The caved rock consisted of very loose to medium dense coal and sandstone fragments. A 2-foot thick void was encountered at about 45 to 47 feet below ground surface. At a depth of about 67 feet, the drilling resistance increased suggesting intact bedrock to the completion depth of the boring at about 71.5 feet. Groundwater was observed during drilling at a depth of about 18 feet. The report concludes that it is probable that progressive caving, over time, of the two coal seams and bedrock interlayer has occurred causing the unstable and loose caved rock encountered in the test drilling. Icicle Creek Engineers recommend that the area in the south portion of the property, south of the north edge of the Lower Split Coal Seam, maintain the classification as a "Moderate Risk Sinkhole Hazard Area" and would be best suitable for open space and trail use. However, the applicant has proposed to develop the area identified as a Moderate Risk Sinkhole Hazard Area with a trash enclosure and surface parking as well as landscaping. As such staff recommends as a mitigation measure that an additional review be completed by the project applicant verifying that the weight of a waste management truck and other vehicles parking in the area is not likely to result in subsidence at this location and the proposed parking/trash facility would be an appropriate use located within the hazard area.

Grading and filling activities are proposed as a part of the site infrastructure improvements including filling of three wetlands and the creation of replacement wetlands. Based on the information provided by the project applicant, preliminary grading estimates show 17,361 cubic yards of cut and 12,479 cubic yards of fill which would be balanced across the site. There are some areas on the site that contain unsuitable materials (topsoil) which would need to be removed. Suitable clean topsoil and mulch from the site would be used in the wetland buffer enhancement and creation areas. The applicant has indicated that select crashed base course materials, trench backfill, gravel backfill as well as asphalt treated base and asphalt top lift would be brought to the site from local sources and unsuitable soils and excess materials would be hauled off-site to approved locations.

Mitigation Measures:

1. The applicant shall be required to comply with the recommendations included in the Geotechnical Engineering Study prepared for the Fieldbrook Commons project, by Earth Solutions NW LLC, dated October 31, 2011.
2. The applicant shall be required to comply with the recommendations included in the Geotechnical Engineering Report, Prepared for Wagner Property, LLC, by Cornerstone Geotechnical, Inc., dated October 11, 2006.
3. An additional coal mine assessment review be completed by a qualified geotechnical professional verifying that the weight of a waste management truck, Fire department ladder truck and other vehicles parking in the area is not likely to result in subsidence at this location and the proposed parking/trash facility would be an appropriate use located within the hazard area. This assessment shall be reviewed and approved by the Current Planning Project Manager, prior to Final PUD approval.

Nexus: SEPA Environmental Review, RMC 4-3-050 Critical Areas Regulations, RMC 4-4-060 Grading, Excavation and Mining Regulations.

2. Water

a. Wetland, Streams, Lakes

Impacts: The subject site contains 6 wetlands and off site several hundred feet is a Class 4 stream. Due to the presence of critical areas the applicant completed a Critical Areas Report and a Supplemental Stream letter, both prepared by Sewall Wetland Consulting, Inc., Dated November 8, 2011 and December 14, 2011 respectively.

The stream letter addresses the potential for a stream to be located on or near the site. Based on the site investigation, the letter concludes there are no streams on the site. However, there is a portion of a wetland that extends onto the east side of the site. This wetland forms a portion of the headwaters for Soos Creek. The investigation extended into this wetland a distance of 100 feet east of the eastern site boundary and revealed no stream channel. As such, no impacts are anticipated to the stream due to its location several hundred feet to the east.

However, the site does contain 6 wetlands; the provided Critical Areas Report evaluates and delineated each wetland located on the subject site. The applicant has proposed to fill 3 of the 6 wetlands on site; therefore the provided report also includes replacement ratios for the wetlands proposed to be filled and a mitigation and monitoring plan. The following table addresses the identified wetland characteristics in the provided report:

Fieldbrook Commons Wetland Characteristics				
Wetland	Size	Category	Buffer	Proposed to be Filled
Wetland A	10,300 SF	2	50-foot	No
Wetland B	30,736 SF	2	50-foot	No
Wetland C	1,149 SF	3	25-foot	No
Wetland D	7,671 SF	2	50-foot	Yes
Wetland E	68 SF	3	25-foot	Yes
Wetland F	1,591 SF	3	25-foot	Yes

Prior to moving forward with the Environmental Review on the subject project, the City required the applicant to complete an Independent Secondary Review of the provided Critical Areas Report including the mitigation and monitoring plan for the wetland fill and re-creation. This secondary review was completed by Otak. Once completed, Sewall Wetland Consulting, Inc. addressed the comments received from Otak in two separate letters; one dated March 16, 2012 (Exhibit 23) the second dated April 10, 2012 (Exhibit 24). The results of the Secondary Review included modifications to the original mitigation and re-creation proposal, including the removal of the stormwater detention pond from the wetland area and the relocation of the re-creation area from the buffer of wetland B to the middle/buffers of Wetland A and C. The updated proposal was reviewed a second time by Otak which resulted in additional comments in a memorandum dated June 13, 2012 (Exhibit 25). A final response was provided from Sewall Wetland Consulting, Inc., dated September 17, 2012 (Exhibit 26). The information provided below is based upon the updated mitigation and monitoring plan provided after secondary review had been completed by Otak.

Wetland Fill and Creation:

If wetland changes are proposed for a non-exempt activity, the applicant shall evaluate alternative methods of developing the property using the following criteria in this order and provide reasons why a less intrusive method of development is not feasible. In determining whether to grant permit approval, the Reviewing Official shall make a determination as to whether the feasibility of less intrusive methods of development have been adequately evaluated and that less intrusive methods of development are not feasible. Sewall Wetland Consulting addressed the following criteria in their April 10, 2012 letter to the City with the following justifications.

a. Avoid any disturbances to the wetland or buffer;

Sewall Wetland Consulting states that due to the requirement to provide a secondary fire access directly out to 108th Ave SE the developer is unable to avoid direct impact to Wetland F. Due to the requirement to dedicate and construct half street improvements along SE 172nd Street the developer is unable to avoid direct impacts to Wetland E. Wetland D is located generally in the center of the project and the preservation of this wetland with its associated buffer would remove such a large portion of the property as to not be feasible to develop the site in any way.

b. Minimize any wetland or buffer impacts;

Sewall Wetland Consulting states that the developer previously attempted to plan roadways and improvements around Wetland D, however the location and shape of the wetland impacted the vehicular circulation and building location to such an extent that the project would not be financially feasible to construct. The proposal has minimized impacts by avoiding Wetland A, B, and C and their associated buffers. These are the more valuable wetland on the site and preserving these wetlands would be the priority.

c. Restore any wetlands or buffer impacted or lost temporarily; and

Sewall Wetland Consulting has indicated that all areas where temporary impacts are proposed would be restored.

d. Compensate for any permanent wetland or buffer impacts by one of the following methods:

i. Restoring a former wetland and provide buffers at a site once exhibiting wetland characteristics to compensate for wetlands lost;

ii. Creating new wetlands and buffers for those lost

The applicant has proposed to complete wetland creation to mitigate for the loss of wetlands by filling.

Renton Municipal Code (RMC) permits filling of wetlands if the following is met:

1) A proposed action avoids adverse impacts to regulated wetlands or their buffers or takes affirmative and appropriate measures to minimize and compensate for unavoidable impacts; and

2) The proposed activity results in no net loss of regulated wetland area, value, or function in the drainage basin where the wetland is located.

RMC establishes the following criteria when completing wetland creation:

- a. Creation or Restoration Proposals:** Any applicant proposing to alter wetlands may propose to restore wetlands or create new wetlands, with priority first for on-site restoration or creation and then second, within the drainage basin, in order to compensate for wetland losses. Restoration activities must include restoring lost hydrologic, water quality and biologic functions.

The applicant has proposed to complete wetland creation on the subject site meeting the first priority for creation location criteria established above.

- b. Compliance with Goals:** Applicants proposing to restore or create wetlands shall identify how the restoration or creation plan conforms to the purposes and requirements of this Section and established regional goals of no net loss of wetlands.

The following table is included in the Sewall Wetland Consulting March 16, 2012 letter, addressing Functional Comparison of impacted wetland and proposed mitigation based on the WADOE wetland rating system:

Wetland	Area	Flood Storage capacity	Species Richness	Water Qual. Function	Hydrologic Function	Habitat Function	Category**
Wetland D	7,671 SF	3,800 cu. ft.	5 species	12pts	8 pts	13pts	3
Wetland E	68 SF	34 cu. ft.	2 species	11pts	4pts	10pts	4
Wetland F	1,491 SF	500 cu. ft.	5 species	10pts	8pts	11pts	4
Proposed	25,508 SF	7,600 cu. ft.	15 species	24pts	20pts	21pts	2
Functional Lift	+16,178 SF	+3,266 cu. ft.	+8 species*	+12pts avg	+9pts avg	+1 Category	

*only 7 different species were found in Wetland D, E & F.

**The categories utilized in this table are not the City of Renton categorizations but the WADOE categories. As an approximate comparison DOE 3 = City of Renton 2, DOE 4 = City of Renton 3 and DOE 2 = City of Renton high functioning 2 or low functioning 1.

The response letter concludes that the newly created wetland would connect to existing Wetland A and C and provide enough lift that the new wetland would now be considered a Category 2 wetland under the WADOE rating system. The report indicates that this would be a substantial lift in function, surface water storage and species richness over the proposed low value WADOE Category 3 and 4 filled wetlands.

- c. Category:** Where feasible, created or restored wetlands shall be a higher category than the altered wetland.

As shown above the new wetland would be a WADOE Category 2 wetland, which is higher than the exiting City of Renton Category 2 wetland. A WDFW Western Washington Wetland Rating Form for the created wetland has been provided, qualifying the WADOE Category 2 (Exhibit 17). Pursuant to Sewall Wetland Consulting, Inc., response memo dated September 17, 2012, some of the functions that would increase would be the split rail fence providing protection to the wetland and buffer area preventing the current type of human intrusion from occurring, trash and debris within the area would be removed, and non-native invasive Himalayan blackberry would be removed and replaced with native species with high values for habitat, thus increasing the specious richness within the plat community. Furthermore, the creation plan includes the placement of pieces of large wood within the wetland and buffer to increase the buffer complexity and to provide habitat features that currently do not exist within the area.

e. Acreage Replacement Ratio: *The ratios listed below apply to all Category 1, 2, or 3 wetlands for restoration or creation which is in-kind, on- or off-site, timed prior to alteration, and has a high probability of success. The required ratio must be based on the wetland category and type that require replacement. Ratios are determined by the probability of recreating successfully the wetland and the inability of guarantees of functionality, longevity, and duplication of type and/or functions.*

RMC RATIOS FOR WETLANDS CREATION OR RESTORATION:		
<i>Wetland Category</i>	<i>Vegetation Type</i>	<i>Creation/Restoration Ratio</i>
<i>Category 1</i>	<i>Forested</i>	<i>6 times the area altered.</i>
	<i>Scrub-shrub</i>	<i>3 times the area altered.</i>
	<i>Emergent</i>	<i>2 times the area altered.</i>
<i>Category 2</i>	<i>Forested</i>	<i>3 times the area altered.</i>
	<i>Scrub-shrub</i>	<i>2 times the area altered.</i>
	<i>Emergent</i>	<i>1.5 times the area altered.</i>
<i>Category 3</i>	<i>Forested</i>	<i>1.5 times the area altered.</i>
	<i>Scrub-shrub</i>	<i>1.5 times the area altered.</i>
	<i>Emergent</i>	<i>1.5 times the area altered.</i>

The following table is provided in both the Critical Areas Report and the April 10, 2012 response letter from Sewall Wetland Consulting Inc.

Wetland	Size	Category	Vegetation Type	Ratio	Required Wetland Creation
Wetland D	7,671 SF	2	Forested	3:1	23,013 SF
Wetland E	68 SF	3	Scrub-shrub	1.5:1	102 SF

Wetland F	1,595 SF	3	Scrub-shrub	1.5:1	2,393 SF
Total	9,334 SF				25,508 SF

As shown above the wetland creation would meet the creation ratios established by RMC and would result in a functional lift to a WADOE Category 2 wetland. There would be no loss of function and value as determined by the provided reports and letters.

Despite these conclusions, Otak, the Department of Ecology and the Tribes provided comments expressing concerns about the wetland creation being located in an existing established forested buffer of a Category 2 wetland. In Otak's June 13, 2012 memo they indicated that no assessment of wetland buffer functions and values was provided. In an e-mail comment received from DOE stated that Ecology generally does not support wetland creation within existing forested buffer areas, which the Muckleshoot Tribes concurred with in their e-mail comment (Exhibits 14 and 15). Following receipt of the above comments a follow up e-mail from DOE was received concurring with a conversation summary from Ed Sewall, the applicant's Wetland Biologist, stating that DOE was less concerned about the project once they had a chance to go through the report in more detail. Following this e-mail another e-mail was received from DOE which further explains their position on the proposed mitigation proposal and explains that it's no longer a concern by DOE (Exhibit 16).

An analysis of the buffer functions and values was provided in the response letter from Sewall Wetland Consulting, Inc. dated September 17, 2012. Ed Sewall's analysis concludes that the wetland creation area would require some conversion of forested buffer to wetland, which would shift existing upland forest outside of the existing wetland buffers of Wetland A and C into the buffer as the edge of the buffer area is expanded. In essence, the buffer remains forested except for portions of the buffer that require grading to create the new wetland. The new expanded buffer would be of similar forested character as the existing buffer, and therefore provide similar benefits to the new and existing wetlands that the existing buffer provides today. However, the portions of the buffer that will be graded and be replanted would result in a temporary reduction in buffer functions over a period of ten or more years, the time it will take for the installed tree species to attain a height of approximately twenty feet or more. The provided mitigation planting plan identifies replacement tree plantings. However, these trees are identified to be a 2 gallon size plant. In order for the forested buffer to establish faster and provide the equivalent functions and values as exist under the current condition staff recommends a mitigation measure that all trees identified in the final mitigation planting plan be a minimum size of two inches in caliper for deciduous or 6 feet in height for coniferous trees and that a final planting plan be submitted for review and approval by the Current Planning Project Manager prior to Final PUD approval.

Additionally, due to the need for an updated mitigation and monitoring plan to comply with the recommendations included in the Otak memorandum, new hydrologic data that may result in changes, and the requirement for a final mitigation and monitoring plan, staff recommends a mitigation measure that the applicant provide a final Wetland Mitigation Plan compliant with RMC 4-8-120D.23 and recommendation included in the Otak's secondary review memorandums dated February 29, 2012 and June 13, 2012 for final review and approval by the Current Planning Project Manager prior to Final PUD approval.

Finally, the provided Critical Areas Report and the Otak memorandum dated February 29, 2012 indicated that all fills of Waters of the United States and Waters of the State, both the Corps of Engineers and Washington Department of Ecology should be contacted regarding permit conditions, compliance, and processing prior to commitment to any fill of wetlands for the subject project. The Otak memorandum recommends that documentation regarding the required permits from State and Federal agencies including Ecology, USACE, and WDFW be provided to the City. Sewall Wetland Consulting, Inc. letter dated March 16, 2011, addressed Otak's comments by stating that when the City accepts the Conceptual Mitigation Plan, they can then prepare a Final Detailed Plan which would be suitable for submittal for a Nationwide Permit from the Army Corps of Engineers, as well as to WADOE for 410 Water Quality Certification. Based on the above recommendation/comments staff recommends a mitigation measure that the applicant provides the City documentation of State and Federal required permits for the fill of the three wetlands prior to approval of the Final PUD.

Wetland Buffer Averaging:

In addition to filling three wetlands on site, the applicant has proposed buffer averaging along the western edge of Wetland B and Wetland A. The buffer averaging is proposed to provide space for the drive aisle behind proposed buildings L and K and to provide additional surface parking along this drive aisle. Overall 2,135 square feet of buffer would be averaged and 4,153 square feet of buffer addition is proposed along the western edge of the re-created wetland and a small 131 square foot area along Wetland B.

Pursuant to RMC buffer width averaging may be allowed by the Department Administrator only where the applicant demonstrates all of the following:

- i. That the wetland contains variations in ecological sensitivity or there are existing physical improvements in or near the wetland and buffer; and*
- ii. That width averaging will not adversely impact the wetland function and values; and*
- iii. That the total area contained within the wetland buffer after averaging is no less than that contained within the required standard buffer prior to averaging; and*
- iv. In no instance shall the buffer width be reduced by more than fifty percent (50%) of the standard buffer or be less than twenty five feet (25') wide.*

Sewall Wetland Consultant's letter dated April 10, 2012 has concluded that the averaging would not impact the functions or character of these wetlands, the area where averaging is proposed has sufficient dense, native vegetation to maintain the function of the wetlands and protect them, and finally the proposed averaged buffer widths would be reduced to 28.5 feet and 34 feet both of which are greater than 50 percent of the standard 50-foot buffer. Staff has reviewed the proposed site plan in relation to the buffer averaging request and believes that the amount of buffer averaging needed for the project could be minimized by relocating a small number of parking stalls. If the southernmost parking stall located in the buffer of Wetland A would be shifted north the amount of buffer averaging and temporary construction impacts would be reduced to Wetland A's buffer. In addition four parking stalls are located in the buffer of Wetland B resulting in the required buffer averaging and related temporary construction impacts. It appears based on the provided site plan that these stalls could be re-located out of the buffer and still be within the vicinity of Building K. Furthermore, if these modifications to the site plan were accomplished a minimum of three trees (Trees 2339, 2400, and 2086) could be retained in the existing quality

buffers of these two wetlands. In order to reduce the impacts on these two wetlands staff recommends that the buffer averaging only be approved for the necessary drive aisles and not for parking stalls. This would reduce the impact on the wetlands, mature trees, and the buffer.

Furthermore, due to the high quality buffers located in the area around both Wetland B and A, buffer enhancement would not be required. Staff recommends approval of buffer averaging proposal with the above recommended modifications to the site plan.

Wetland Trail:

The applicant has proposed to provide a trail through the wetland buffer of Wetland B, and the buffer of the re-created wetland. Overall the trail would impact 1,680 square feet of buffer area and would be 4-feet wide. RMC permits trails and walkways in wetland buffers provided they are located in the outer 25 percent of the buffer and that the trail is constructed of permeable materials. Based on the Otak memorandum dated June 13, 2012 the trail location is not within the outer 25 percent of the buffer, therefore Otak recommends that trail be re-aligned to be located in the outer 25 percent of the wetland buffer area. In the September 17, 2012 Sewall Wetland Consulting Inc., response letter he identifies that in order to create a trail that would allow the public to walk through and view the critical areas on the site the applicant would need to go closer to the critical area than the 25 percent code allowance. The applicant has proposed to place the trail in the outer 25 percent of the buffers for the majority of Wetland B with the exception of a small section near the end of the trail. Furthermore, the applicant has identified that the trail would be placed over the new stormwater line to reduce construction impacts to the overall critical area. Based on the provided site plan, excluding the new created wetland, it appears possible to provide a trail either outside of the buffer area altogether and/or within the outer 25 percent of the buffers of both Wetland B and C with the exception of a small portion located near the end of the trail. Staff recommends that the trail be designed, to the extent feasible, over the top of the stormwater line, to avoid trees, and in the outer most extent of the existing buffers on the subject site. Following modification to the trail to meet the above standards, it appears the trail would be in compliance with the Critical Areas exemption criteria for a trail in a wetland buffer.

Additionally, no information was provided as to the proposed construction material for the trail, as such the proposed trail would be required to be re-designed to be in compliance RMC standards. Lastly, RMC requires that the buffer area along the trail be enhanced adjacent to the trail, however if enhancement is not feasible do to high quality vegetation, additional buffer area or other mitigation may be required. The applicant has proposed to provide 4,284 square feet of buffer addition for the overall project. After buffer averaging there is an additional 2,149 square feet of buffer addition. If this area is attributed to trail impacts the total area of impact (1,680 SF) would be balanced by the buffer addition proposed. As such, staff recommends approval of the wetland trail, pursuant to re-design and approval of surface materials.

Temporary Wetland Impacts:

As a part of the project's construction temporary wetland impacts are anticipated. These impacts would result in 3,393 square feet of impacted area. The primary impact is a result from installation of a stormwater outfall. Temporary construction impacts are identified to be restored and re-planted. A mitigation planning plan was provided with the application, which identifies the areas

of temporary impact to be replanted with buffer enhancement plantings such as vine maple, Douglas Fir, Hazelnut, Indian Plum, etc., all to be 2 gallon size plants.

As mentioned above under "Buffer Averaging" staff has recommended a reduced amount of buffer averaging, which should also reduce the amount of temporary construction impacts to the wetland buffers of Wetlands A and B. Furthermore, as shown on the Tree Inventory Plan three trees are proposed to be removed from the areas of temporary impact from these buffers. Tree removal results in a more significant impact to a wetland buffer than typical temporary construction impacts. This is due to the long duration of time needed to establish new trees to mitigate for the temporary impact, specifically when compared to shrubs and ground cover plants. Therefore staff does not support the removal of trees in the buffer of Wetlands A and B and recommends a mitigation measure that temporary construction impacts do not impact significant trees located in existing wetland buffers, including but not limited to the preservation of the following trees, 2086, 2088, 2400, 2399, 2108, 2330, and 2186.

Stormwater Outfall:

New surface water discharges to wetlands or buffers surface water management structures is an exempt activity in the critical area; provided, the discharge meets the requirements of the Storm and Surface Water Drainage Regulations (RMC 4-6-030); will not result in significant adverse changes in the water temperature or chemical characteristics of the wetland or stream/lake water sources; and there is no increase in the existing rate of flow unless it can be demonstrated that the change in hydrologic regime would result in equal or improved wetland or stream/lake functions and values. The provided stormwater report has indicated the proposed discharge is consistent with the 2009 King County Surface Water Design Manual (KCSWDM) as such the discharge would be in compliance with the regulations located in RMC 4-6-030. Furthermore, Ed Sewall had indicated in his September 17, 2012 memorandum that the stormwater outfall would release water from the same drainage basin matching closely with existing drainage patterns on the undeveloped site and that no change in hydrology or character of Wetland B is anticipated as a result of the stormwater outfall. Based on the provided information staff recommends approval of the stormwater outfall provided the temporary construction impacts are mitigated and existing protected trees are avoided to the extent feasible.

Mitigation Measures:

1. The applicant shall provide a final Wetland Mitigation Plan compliant with RMC 4-8-120D.23 and recommendation included in the Otak's secondary review memorandums dated February 29, 2012 and June 13, 2012 for final review and approval by the Current Planning Project Manager prior to Final PUD approval.
2. The applicant shall provide the City documentation of State and Federal required permits for the fill of the three wetlands prior to approval of the Final PUD.
3. The applicant shall provide a final mitigation planting plan for review and approval by the Current Planning Project Manager prior to Final PUD approval.
4. All trees identified in the final mitigation planting plan shall be a minimum size of two inches in caliper for deciduous trees or 6 feet in height for coniferous trees.

5. Temporary construction impacts shall not impact significant trees located in existing wetland buffers, including but not limited to the preservation of the following trees, 2086, 2088, 2400, 2399, 2108, 2330, and 2186.
6. Staff recommends that the trail be designed, to the extent feasible, over the top of the stormwater line, to avoid trees, in the outer most extent of the existing buffers on the subject site, and constructed of permeable materials. A final trail plan shall be provided to the City of Renton Current Planning Project Manager for review and approval prior to Final PUD approval.

Nexus: SEPA Environmental Regulations, Critical Areas Regulations

b. Storm Water

Impacts: The applicant submitted a Preliminary Technical Information Report (TIR), prepared by D.R. Strong Consulting Engineers Inc., dated November 13, 2012. Based on the provided TIR the site would contain approximately 42.5% impervious services for the overall site. This would include building areas, associated walkways, driveways, parking and drive aisles and would total approximately 200,000 square feet of area. The remainder of the site would consist of residential landscaping and other pervious surfaces.

The TIR evaluated the existing site conditions as it relates to stormwater runoff. Based on this evaluation the pre-developed site is contained within two Threshold Discharge Areas (TDAs), TDA West and TDA East (Exhibit 18). TDA West has three Natural Discharge Areas (NDAs), NDA 1, NDA 2 and NDA 3. TDA East has two Natural Discharge Areas, NDA 1 and NDA 2. Runoff is discharged as follows:

TDA West:

- NDA 1: discharges at the site's southwestern property corner and heads south through the conveyance system in 108th Avenue SE. Eventually crossing 108th in a westerly direction into a stream through the Springbrook Project.
- NDA 2: discharges at the Site's southern property line and heads south through the conveyance system in 109th Place SE. It eventually is collected in the conveyance system within Benson Drive S and converges with the path of NDA 1.
- NDA 3: sheet flows to the east across the southeastern property corner of parcel A. It sheet flows across adjacent developed properties and into SE 173rd Street before converging with the downstream path of NDA 2.

TDA East:

- NDA 1: sheet flows to the east and exists the site near the northeast corner as sheet flow. The runoff is eventually collected in Soos Creek.
- NDA 2: sheet flows to the east and exists the site near the southeast property corner of parcel A. It reaches a closed depression and overflows to the east where it converges with the downstream path of NDA 1.

Section II of the TIR reviewed the Renton Amendments to the King County Service Waster Design Manual (KCSWDM). Pursuant to the TIR the project is located in a Conservation Flow Control Area and will therefore adhere to Level 2 Flow Control Standards, forested conditions. The applicant has proposed two wet vault facilities located in the western and eastern portions of the site. The project is also located in the Enhanced Water Quality Treatment area. The applicant has proposed to follow each vault by a media filtration system to accommodate the Enhance Water Quality Treatment standards. Additionally, the proposed conveyance system was analyzed using the KCBW

program, and has been shown to be capable of conveying the 100-year peak storm without overtopping any structures or channels.

D.R. Strong completed a downstream analysis and identified the downstream area to be located in the Black River Drainage Basin; more specifically the Panther Creek Subbasin. The TIR provided a review of documented drainage complaints within one mile of the downstream flow paths. This review documented several complaints within the past ten years. Many of which were found to be water quality audits, which are not pertinent to the subject analysis. However, the TIR's analysis of the remainder of the complaints revealed that no mitigation would be required by the proposed project. As all the complaints were found to be maintenance issues and should be resolved by either City Maintenance (public systems) or the respective property owners (private system). Lastly, the provided TIR states that standard sediment and erosion control methods would be utilized, which would include the use of stabilized construction entrance, perimeter silt fencing, and other necessary measures to minimize soil erosion during construction.

Mitigation Measures: No further mitigation required.

Nexus: N/A

3. Vegetation

Impacts: The site is currently forested with the exception of the portion of the site which was historically the location of a Renton fire station. The upland portion of the site is vegetated with a mix of red alder, big leaf maple, bitter cherry and Douglas fir. Understory species include Indian plum, hazelnut, salmonberry, Himalayan blackberry, sword fern, vine maple and creeping blackberry.

The applicant provided a Significant Tree Inspection Report, completed by Greenforest Incorporated, dated September 8, 2011. The arborist visited the site July 11 and 12, 2011 and again September 6, 2011 to perform field inspections and identify which surveyed trees are dead, diseased or dangerous for the purposes of calculating tree retention requirements. Based on the provided Tree Inventory 786 trees are located on the subject site, of which 275 are located in critical areas and buffers and 227 were identified as dead, diseased, or dangerous. This results in the exclusion of 502 trees from retention calculations. As such, 284 trees are utilized to calculate retention requirements of 10 percent of the significant trees located on the site. Ten percent of 284 is 28.4 trees required to be retained. The applicant has indicated on the tree retention worksheet that 31 trees would be retained which would exceed the minimum requirement of 28.4 trees required by code.

Additionally, it should be noted that the applicant has requested a modification through their PUD application to remove trees from the wetland buffers, specifically the three wetlands that are proposed to be filled, in addition to trees located in the buffer of wetland A, B and C due to stormwater line construction and wetland creations. Forty four trees are proposed to be removed for wetland creation and four trees are proposed to be removed for the stormwater line construction. As discussed above under subsection "2.a. Wetlands, Streams, and Lakes" the removal of these trees are necessary to create the new higher quality wetland. However, it was further mentioned that the new expanded buffer would be of similar forested character as the existing buffer, and therefore provide similar benefits to the new and existing wetlands that existing buffer provides today. In order for the "new" buffer to maintain these functions and benefits the mature trees need to be retained. The removal of trees for the construction of the

stormwater line further degrades the “new” buffer of the created wetland. A few additional trees are identified for removal in the “new” buffer for unknown reasons, these trees included 2089, 2185, 2184, 2183, and 2193. In order to retain as many of the trees as possible in the “new” buffer staff recommends a mitigation measure that the stormwater line be re-designed to reduce the number of trees required to be removed for its installation and that trees 2089, 2185, 2184, 2183, and 2193 be retained.

It is unclear if these trees were included in the calculations for tree retention based on the provided materials.

With the application the applicant provided a Landscape Plan which identifies a significant amount of new landscape proposed at the subject site as a part of the proposed development. The planting plan shows a variety of new trees including deciduous and evergreen trees. The applicant contends that the new trees would provide a healthier stand of trees for years to come while being strategically located to create screening buffers and architectural interest. Public comments were received which identified concerns about tree retention at the subject site. As proposed the retention standards have been met per code and additional trees are proposed to be planted throughout the site. Once the new trees have time to mature the overall site would contain a quality tree canopy for a developed multi-family site.

Mitigation Measures: The stormwater line shall be re-designed to reduce the number of trees required to be removed for its installation and that trees 2089, 2185, 2184, 2183, and 2193 be retained. Alignment of the new stormwater discharge shall be reviewed and approved by the Current Planning Project Manager and the Plan Review Project Manager prior to Final PUD Approval.

Nexus: SEPA, Critical Areas Regulations

4. Wildlife

Impacts: Under current conditions the majority of the subject site is forested. Historically parcel C was the location of a Renton fire station. However the fire station has been removed from the site. With the application the applicant submitted a Habitat Study, prepared by Sewall Wetland consulting Inc., dated December 14, 2011. This study identified that no state or federally listed species were identified or known at use on the site and/or are located on or near the site. Pursuant to the provided report there is no “critical habitat” as defined by Renton Municipal Code located on or near the subject site.

The above conclusions may be true, however the site still provides habitat for many non-state or federally listed species. Noted in the projects SEPA check list songbirds, crows, small rodents and raccoons utilize the site. In addition, public comments were revived addressing concerns about the loss of habitat for deer and coyotes in addition to the previously mentioned raccoons. The removal of a large portion of the trees and filling of three wetlands would impacts that habitat for common local wildlife. However, a portion of the site would remain in a vegetative state providing a sanctuary for the animals that reside in the area. As such, it is not anticipated that the subject development would result in an adverse impact to wildlife.

Mitigation Measures: No further mitigation required.

Nexus: N/A

5. Transportation

Impacts: The site would be accessed at three locations along SE 172nd Street and one emergency vehicle only access off of 108th Avenue SE. Frontage improvements are proposed along 108th Avenue SE and SE 172nd Street, including 24,525.51 square feet of dedicated public right-of-way. An internal vehicular street system is proposed to provide vehicular access to each unit. Parking is provided both in provided garages and as surface parking along the internal circulation system.

With the application the applicant submitted a Limited Scope Traffic Impact Analysis (Traffic Study), prepared by Northwest Traffic Experts, dated November 14, 2011. The study was originally completed for a 161 unit proposal however the applicant increased the number of units after the study was completed, therefore an additional letter was submitted by Northwest Traffic Experts, dated November 30, 2011 addressing the increase in units from 161 to 163. However, the applicant is proposing to develop 162 units, which is covered in the two documents submitted with the application.

The traffic study analyzed the intersections at 108th Avenue SE and SE 172nd Street and Benson Dr. S and 108th Way SE. The study used an anticipated horizon year for the subject development of 2013. 108th Avenue SE/SE 172nd Street is a stop sign controlled intersection and Benson Dr. S/108th Way SE is a signalized intersection. The provided study evaluated the new trips attributed to the development as well as conducted a Level of Services (LOS) analysis. Based on the trip generation for a 163 unit apartment development the Traffic Study concludes that 1,084 new average weekday daily trips would be attributed to the project, 83 at AM Peak Hour and 101 at PM Peak Hour. The trip generation values account for all site trips made by all vehicles for all purposes, including residents, visitor, and service and delivery vehicle trips.

The Traffic Study included an analysis for LOS, which is a qualitative measure describing operational conditions within a traffic flow. These conditions include factors such as speed, delay, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. Levels of Service are given letter designations from A to F, with LOS A representing the best operating conditions (free flow, little delay) and LOS F the worst (congestion, long delays). Generally, LOS A and B are high, LOS C and D are moderate and LOS E and F are low. The Traffic Study calculated LOS using the procedures in the Transportation Research Board Highway Capacity manual 2000. The traffic study concludes the intersections would operate at LOS C at the 108th Avenue SE/SE 172nd Street intersection and LOS B at the Benson Dr. S/108th Way SE intersection, therefore meeting the City of Renton intersection standards of LOS D or better. Overall the provided Traffic Study recommends the applicant construct the frontage improvements including curb, gutter and sidewalk along 172nd Street SE to City of Renton Standards and contribute to the Transportation Mitigation fee required by the City to mitigate for traffic related project impacts. As such, staff recommends that the applicant be required to comply with the recommendation included in the Traffic Study.

Many public comments were received expressing concerns in regards to traffic impacts related to the development of the subject project. Particular interest was related to the intersection of SE 172nd St. and 108th Way SE. As mentioned above the provided traffic study has indicated that the post development condition of this intersection would operate at a LOS C which is consistent with City of Renton LOS standards. Concerns also were brought up about the Benson Dr. S/108th Way SE intersection. As with the previous intersection, the traffic study has concluded that this intersection would provide a LOS B, which is considered to be a high functioning intersection. However, the last intersection that was of concern was Carr Road and SR-167. This intersection

was not addressed in the provided traffic study. However, an expanded traffic study was not required because the City has enough information that an expanded traffic study would not have provided new information to the City. Additionally, it should be noted that the City understands the traffic challenges in this area and has a funded traffic improvement project planned for construction in 2014.

Mitigation Measures: No Further Mitigation Required

Nexus: N/A

6. Fire & Police

Impacts: Police and Fire Prevention staff indicated that sufficient resources exist to furnish services to the proposed development; subject to the condition that the applicant provides Code required improvements and fees.

Mitigation Measures: No Further Mitigation Required.

Nexus: N/A

E. Comments of Reviewing Departments

The proposal has been circulated to City Department and Division Reviewers. Where applicable, their comments have been incorporated into the text of this report and/or "Advisory Notes to Applicant."

- ✓ **Copies of all Review Comments are contained in the Official File and may be attached to this report.**

The Environmental Determination decision will become final if the decision is not appealed within the 14-day appeal period (RCW 43.21.C.075(3); WAC 197-11-680).

Environmental Determination Appeal Process: Appeals of the environmental determination must be filed in writing together with the required fee to: Hearing Examiner, City of Renton, 1055 South Grady Way, Renton, WA 98057, on or before 5:00 p.m. on January 25, 2013. RMC 4-8-110 governs appeals to the Hearing Examiner and additional information regarding the appeal process may be obtained from the City Clerk's Office, Renton City Hall – 7th Floor, (425) 430-6510.

ADVISORY NOTES TO APPLICANT

The following notes are supplemental information provided in conjunction with the administrative land use action. Because these notes are provided as information only, they are not subject to the appeal process for the land use actions.

Planning:

1. RMC section 4-4-030.C.2 limits haul hours between 8:30 am to 3:30 pm, Monday through Friday unless otherwise approved by the Development Services Division.
2. Commercial, multi-family, new single family and other nonresidential construction activities shall be restricted to the hours between seven o'clock (7:00) a.m. and eight o'clock (8:00) p.m., Monday through Friday. Work on Saturdays shall be restricted to the hours between nine o'clock (9:00) a.m. and eight o'clock (8:00) p.m. No work shall be permitted on Sundays.
3. Within thirty (30) days of completion of grading work, the applicant shall hydroseed or plant an

appropriate ground cover over any portion of the site that is graded or cleared of vegetation and where no further construction work will occur within ninety (90) days. Alternative measures such as mulch, sodding, or plastic covering as specified in the current King County Surface Water Management Design Manual as adopted by the City of Renton may be proposed between the dates of November 1st and March 31st of each year. The Development Services Division's approval of this work is required prior to final inspection and approval of the permit.

4. A National Permit Discharge Elimination System (NPDES) permit is required when more than one acre is being cleared.
5. The applicant will be required to submit a Final Wetland Mitigation Report and Maintenance and Monitoring proposal. In addition, the applicant will be required to comply with all the code requirements of RMC 4-3-050 Critical Areas. This includes, but is not limited to, placing the critical area within a Native Growth Protection Easement, providing fencing and signage, and providing the City with a site restoration surety device and, later, a maintenance and monitoring surety device.
6. The applicant may not fill, excavate, stack or store any equipment, dispose of any materials, supplies or fluids, operate any equipment, install impervious surfaces, or compact the earth in any way within the area defined by the drip line of any tree to be retained.
7. The applicant shall erect and maintain six foot (6') high chain link temporary construction fencing around the drip lines of all retained trees, or along the perimeter of a stand of retained trees. Placards shall be placed on fencing every fifty feet (50') indicating the words, "NO TRESPASSING – Protected Trees" or on each side of the fencing if less than fifty feet (50'). Site access to individually protected trees or groups of trees shall be fenced and signed. Individual trees shall be fenced on four (4) sides. In addition, the applicant shall provide supervision whenever equipment or trucks are moving near trees.

Plan Review – Water:

1. The applicant submitted a conceptual utility plan showing the location of the water for Soos Creek sanitary sewer.
2. Per the city of Renton Fire Marshal the fire flow is 2750 GPM; a minimum of 3 fire hydrants are required. The project will be required to install associated fire hydrants, an approved fire sprinkler system, FDC and backflow device in order to serve this project with adequate fire flow. Any new construction must have one fire hydrant capable of delivering a minimum of 1,000 GPM and shall be located within 150 feet of the structure and additional hydrants (also capable of delivering a minimum of 1,000 GPM) within 300 feet of the structure. This distance is measured along the travel route.
3. Per City of Renton code the lateral spacing of fire hydrants shall be predicated on hydrants being located at street intersections.
4. The number and location of new fire hydrants as required by Renton Fire Department shall be determined based on the final site plan and fire flow demand.

Plan Review – Sanitary Sewer:

The applicant submitted a conceptual utility plan showing the location of the sanitary sewer for Soos Creek sanitary sewer.

Plan Review – Stormwater:

1. The project is required to comply with the new City of Renton Amendments to the 2009 King County Surface Water Design Manual. A conceptual drainage plan and report stamped by a PE

was submitted with the formal application and per the report the project is complying with the 2009 King County Surface Water Design Manual. The report submitted states that the project will adhere to the flow control - forested conditions.

2. The conceptual utility plan submitted is showing a vault and a pond. The storm drainage needs to be consistent with any other wetlands plans in regard to location and number of vaults and ponds.
3. Plans will be reviewed in detail prior to issuance of a construction permit following land use process.
4. The project will be required to pay the Surface Water System Development Charges of \$0.405 per square foot of new impervious area. This fee is collected prior to the issuance of the construction permit.

Plan Review – Street Improvements:

1. Additional offsite improvements to include curb, gutter, sidewalk, and street lighting will be required to be installed for this project along the frontage of 108th Ave SE and SE 172nd St. Frontage improvements on 108th Ave SE shall include 8' sidewalks and 8' planter strips per the current code. Frontage improvements on SE 172nd St shall include 32 feet of pavement from the south to the north then an 8' planter strip and (working to the north) a 5' sidewalk. Note: the applicant has requested a modification to the required street improvements. This modification will be reviewed by the Hearing Examiner for a determination.
2. Additional right-of-way dedication of 15 1/2' on 108th Ave SE will be required. The right of way dedication on SE 172nd St shall be calculated to be measured as necessary to meet the above described road section; that is at the back of the proposed sidewalk. All dedications are required prior to closing out the project.
3. This project needs to extend SE 172nd St to the east property line of the parcel being developed. SE 172nd St will be a dedicated public right of way prior to issuance of a construction permit.
4. The cul-de-sac needs to show a 45' pavement section.
5. Traffic Mitigation Fees will apply. These fees are calculated per the ITE Trip Generation Manual, 8th Edition. These fees are calculated as \$80,797.50 based on the proposal.
6. Street lighting shall be installed per City of Renton standards and specifications. The lighting on SE 172nd St shall be decorative with black poles spaced approximately 110 feet.

Plan Review – General:

1. All required utility; drainage and street improvements will require separate plan submittals prepared according to City of Renton drafting standards by a licensed Civil Engineer.
2. All plans shall be tied to a minimum of two of the City of Renton Horizontal and Vertical Control Network.
3. Permit application must include an itemized cost estimate for these improvements. Half of the fee must be paid upon application for building and construction permits, and the remainder when the permits are issued. There may be additional fees for water service related expenses. See Drafting Standards.

Fire and Emergency Services:

1. A Fire Impact Fee shall be paid at the time of building permit issuance.
2. The fire flow calculation for the project is 2,750 gpm. Minimum fire hydrant spacing is one hydrant within 150-feet and two within 300-feet of each building. Final fire hydrant requirements are based on fire flow calculations and final access road configuration. A water

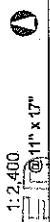
availability certificate is required from Soos Creek Water and Sewer District.

3. Approved fire sprinkler (per NFPA 13) and fire alarm systems are required throughout all buildings. Separate plans and permits required by the fire department. Direct outside access is required to the fire sprinkler riser rooms. Fully addressable and full detection is required for all fire alarm systems.
4. Fire department apparatus access roadways are required within 150-feet of all points on the building. Fire lane signage required for the onsite roadways. Required turning radius are 25-feet inside and 45-feet outside. Roadways shall be a minimum of 20-feet wide. Maximum grade on roadways is 15%. Roadways shall support a minimum of a 30-ton vehicle and 322-psi point loading. City street ordinance requires a full 90-foot cul-de-sac turnaround for streets exceeding 300-feet dead end. Landscape islands are not allowed in cul-de-sacs. City fire code ordinance requires two separate means of access roadways for complexes of three or more buildings.
5. An electronic site plan is required prior to occupancy for pre-fire planning purposes.

Property Services:

1. There are minor errors and inconsistencies in the Project Narrative.
2. The PUD plans use a six pointed star but this is not located in the legend. It is likely the area of wetland creation but it isn't plain. The wetland mitigation plan may spell this out but the wetland information contained on the PUD plan sheets is sparse.

RENTON



This map is a user generated static output from an internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

City of Renton, Washington

EXHIBIT 1

Parcel Identification Map



EXHIBIT 2

Notes

None



1: 2,432

203 0 101 203 Feet

NAD_1983_HARN_StatePlane_Washington_North_FIPS_4601

Legend

Jurisdiction Boundaries



Other



City of Renton

Addresses



cells

Overlay Districts



Auto Mall A



Auto Mail B



Employment Area Valley



City Center Sign Regulation Area



Urban Design District D

City of **Renton** 
Finance & IT Division

Information Technology - GIS

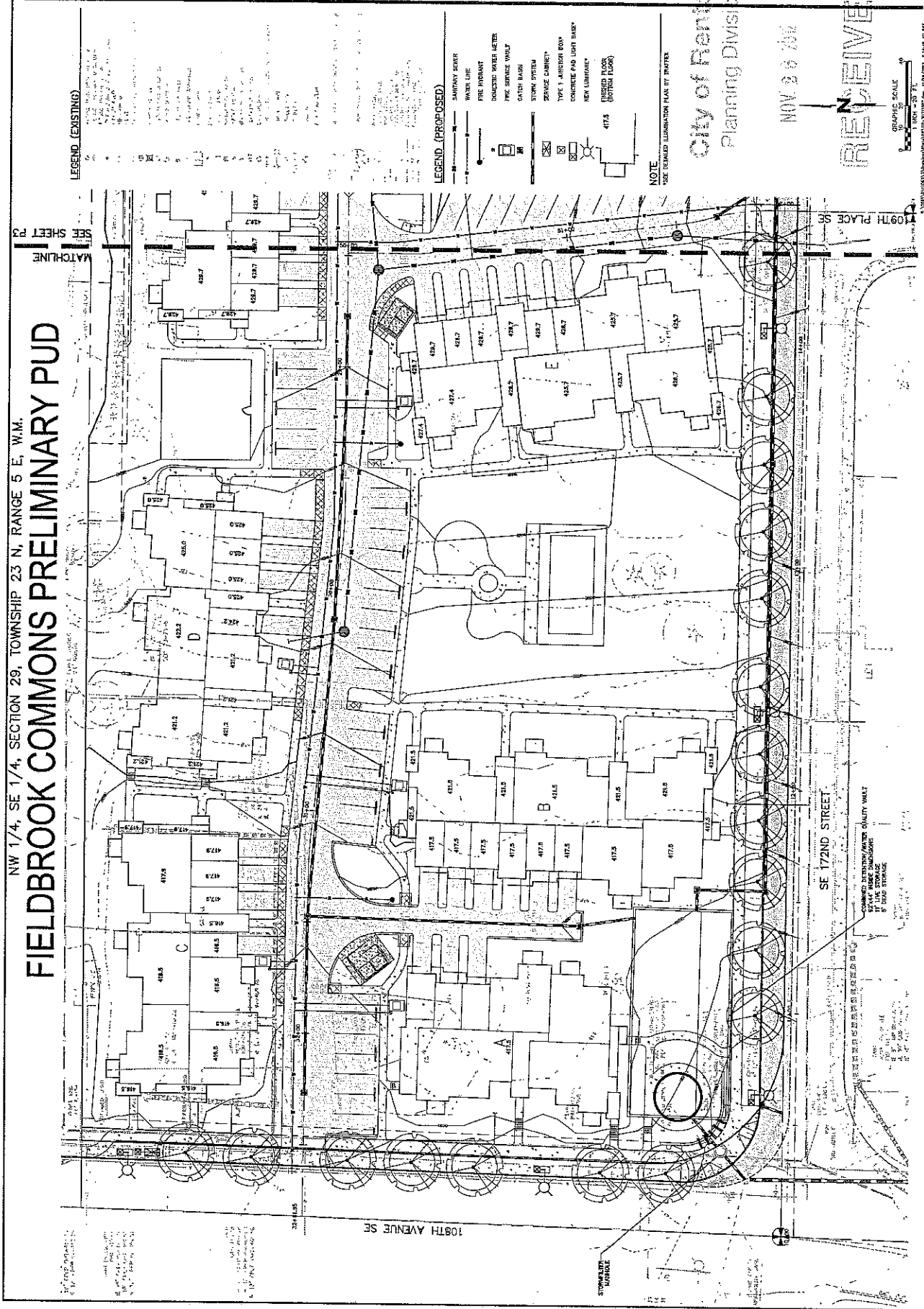
RentonMapSupport@Rentonwa.gov

12/26/2012

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD



FIELDBROOK COMMONS
PRELIMINARY PUD
GENERALIZED UTILITIES PLAN, WEST
17040 108TH AVENUE SE
RENTON, WA

PNW HOLDINGS, LLC
9675 SE 36TH STREET SUITE 105
MERCER ISLAND, WA 98040
(206) 586-1147

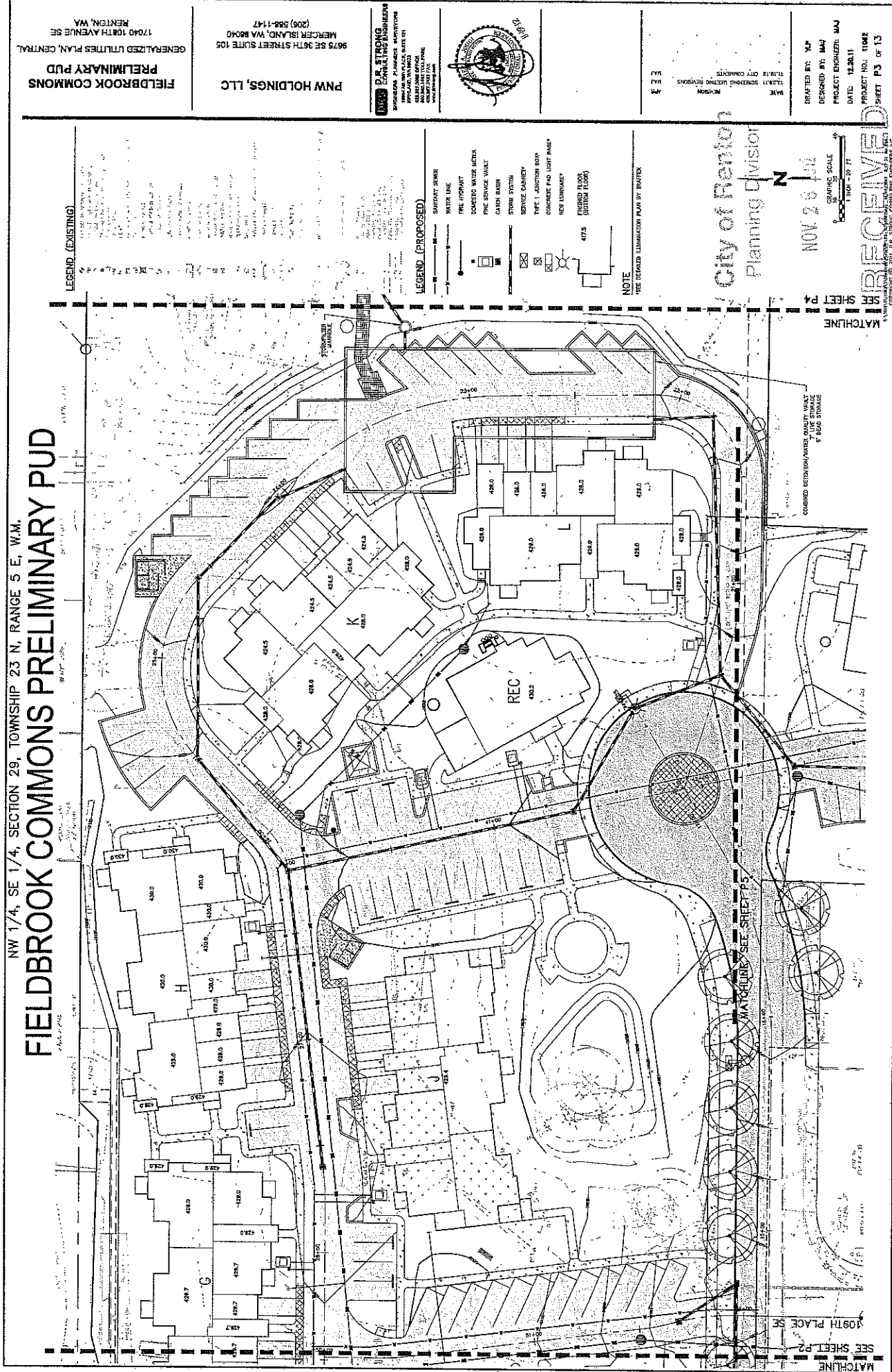
D.R. STRONG
CONSULTING ENGINEERS, INC.
10000 1ST AVE. SUITE 101
RENTON, WA 98059
(206) 881-1212
FAX (206) 881-1211
WWW.DRSTRONG.COM



DATE: 11/26/02
DESIGNED BY: YJP
CHECKED BY: JMM
PROJECT ENGINEER: MAJ
DATE: 12/20/11
PROJECT NO.: 11002
SHEET P2 OF 13

RECEIVED
CITY OF RENTON
PLANNING DIVISION
NOV 26 2002

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD



LEGEND (EXISTING)

LEGEND (PROPOSED)

NOTE

City of Norton
Planning Division

NOV 26 2011

GRAPHIC SCALE
1" = 20' FT

RECEIVED

FIELDBROOK COMMONS
PRELIMINARY PUD
GENERALIZED UTILITIES PLAN, CENTRAL
17040 108TH AVENUE SE
RENTON, WA

PNW HOLDINGS, LLC
9675 SE 96TH STREET SUITE 105
MERCER ISLAND, WA 98040
(206) 556-1147

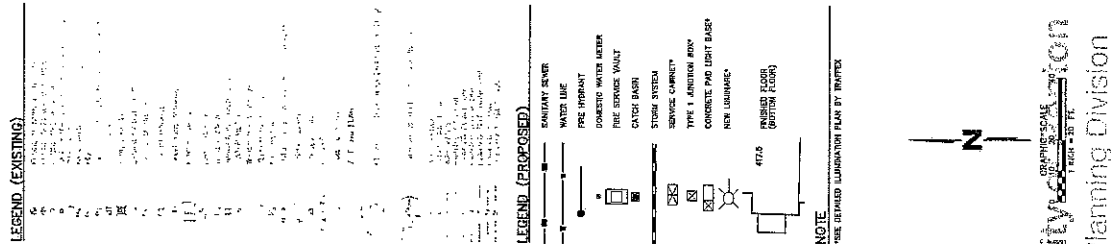
D.A. STRONG
ENGINEER
10000 10TH AVENUE SE
SUITE 100
RENTON, WA 98040
(206) 556-1147



DATE: 11/15/11
BY: JMA
CHECKED: JMA
DESIGNED: JMA
PROJECT ENGINEER: JMA

DRAWN BY: JMA
DESIGNED BY: JMA
PROJECT ENGINEER: JMA
DATE: 11/15/11
PROJECT NO.: 11042
SHEET P3 OF 13

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M.

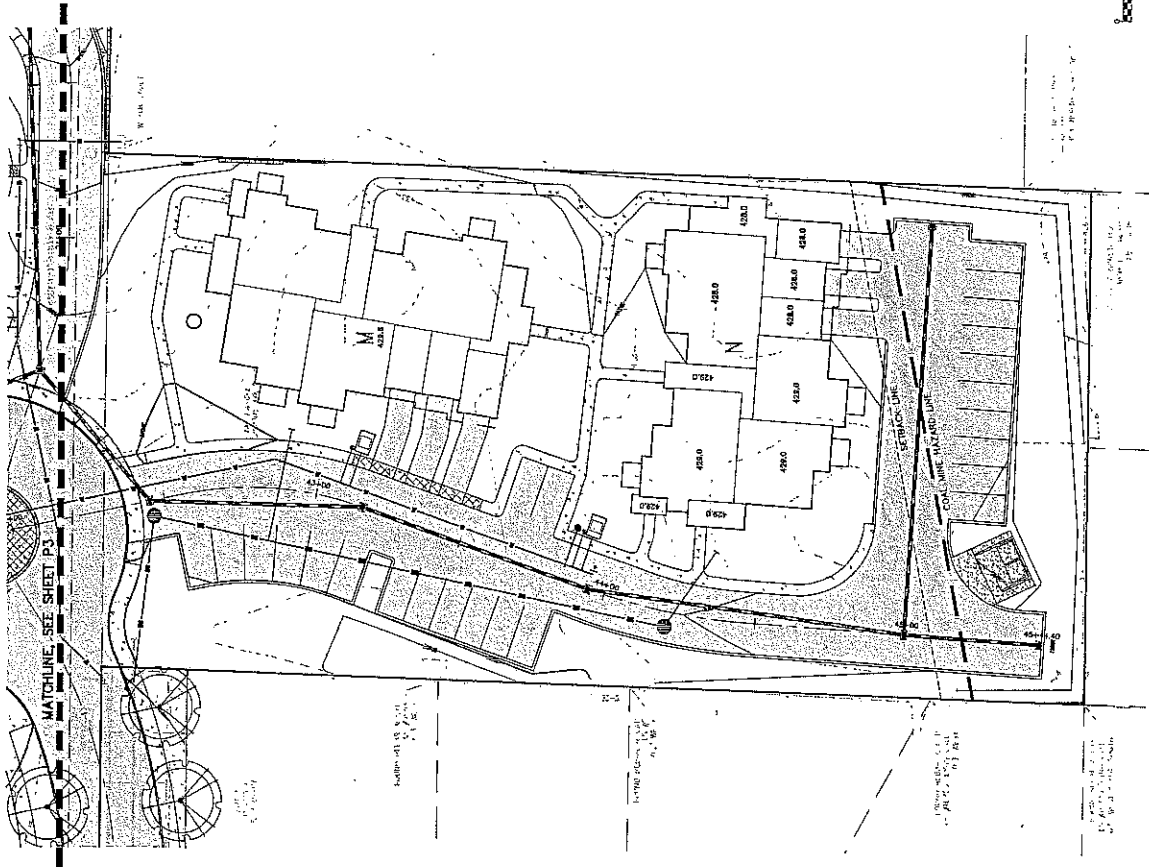


DRAFTED BY: YLP
DESIGNED BY: MAJ
PROJECT ENGINEER: MAJ
DATE: 12.20.11
PROJECT NO.: 1104Z
SHEET P4 OF 13

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NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD



LEGEND (PROPOSED)

[Symbol]	SANITARY SEWER
[Symbol]	WATER LINE
[Symbol]	FIRE HYDRANT
[Symbol]	DOMESTIC WATER METER
[Symbol]	PNE. SERVICE VALVE
[Symbol]	CATCH BASIN
[Symbol]	STORM SYSTEM
[Symbol]	SERVICE CABINET*
[Symbol]	TYPE 1 SANITATION BIN*
[Symbol]	CONCRETE PAD LIGHT BASE*
[Symbol]	NEW LUMBER*
[Symbol]	FINISHED FLOOR (EXISTING FLOOR)

LEGEND (EXISTING)

[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING DRIVE
[Symbol]	EXISTING SIDEWALK
[Symbol]	EXISTING LOT
[Symbol]	EXISTING FENCE
[Symbol]	EXISTING UTILITY
[Symbol]	EXISTING ROAD
[Symbol]	EXISTING RAILROAD
[Symbol]	EXISTING AIRPORT
[Symbol]	EXISTING MARINA
[Symbol]	EXISTING PARK
[Symbol]	EXISTING GOLF COURSE
[Symbol]	EXISTING BEACH
[Symbol]	EXISTING LAKES
[Symbol]	EXISTING RIVERS
[Symbol]	EXISTING MOUNTAINS
[Symbol]	EXISTING CANYONS
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[Symbol]	EXISTING COLD
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[Symbol]	EXISTING RAINY
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[Symbol]	EXISTING CALM
[Symbol]	EXISTING BREEZY
[Symbol]	EXISTING STORMY

NOTE: THE EXISTING LUMBER PLAN BY TRAYLOR

City of Pionton
 Planning Division

NOV 26 1992

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 CITY OF PIONTON
 PLANNING DIVISION

FIELDBROOK COMMONS
 PRELIMINARY PUD
 GENERALIZED UTILITIES PLAN, SOUTH
 17040 196TH AVENUE SE
 RENTON, WA

PNW HOLDINGS, LLC
 9679 SE 36TH STREET SUITE 105
 MERCER ISLAND, WA 98040
 (206) 886-1147

DAVIDSON
 ENGINEERING, PLANNING, SURVEYING
 1800 140TH AVENUE, SUITE 101
 RENTON, WA 98057
 (206) 886-1147
 FAX (206) 886-1148

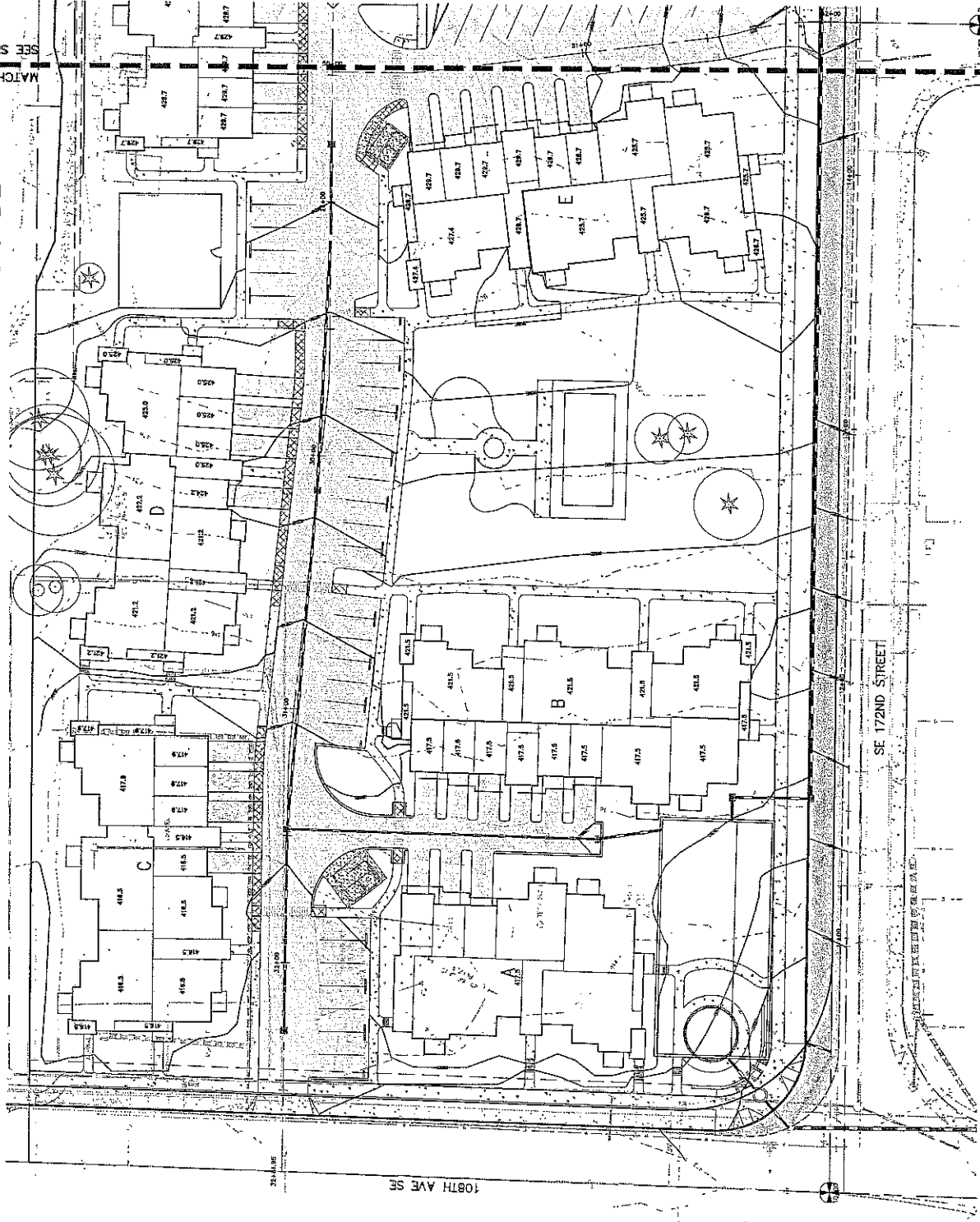


DATE: 12/21/91
 PROJECT NO.: 11062
 SHEET P5 OF 13

DRAWN BY: YAP
 DESIGNED BY: MAJ
 PROJECT ENGINEER: MAJ
 DATE: 12/20/91
 PROJECT NO.: 11062
 SHEET P5 OF 13

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD

SEE SHEET P-7
MATCHLINE



HATCH LEGEND

- CONCRETE PAVEMENT
- CONCRETE RAISED
- PAVED
- CONCRETE TRASH ENCLOSURE AREAS

FIELDBROOK COMMONS
PRELIMINARY PUD
CONCEPTUAL GRADING PLAN, WEST
17040 108TH AVENUE SE
RENTON, WA

PNW HOLDINGS, LLC
9675 SE 36TH STREET, SUITE 105
MERCER ISLAND, WA 98040
(206) 398-1147

D.R. STONG
CONSULTING ENGINEERS
10000 108TH AVENUE SE
RENTON, WA 98040
(206) 398-1147
D.R. STONG
CONSULTING ENGINEERS
10000 108TH AVENUE SE
RENTON, WA 98040
(206) 398-1147



DATE: 10/10/11
PROJECT: 10000
SHEET: 10000

City of Renton
Planning Division

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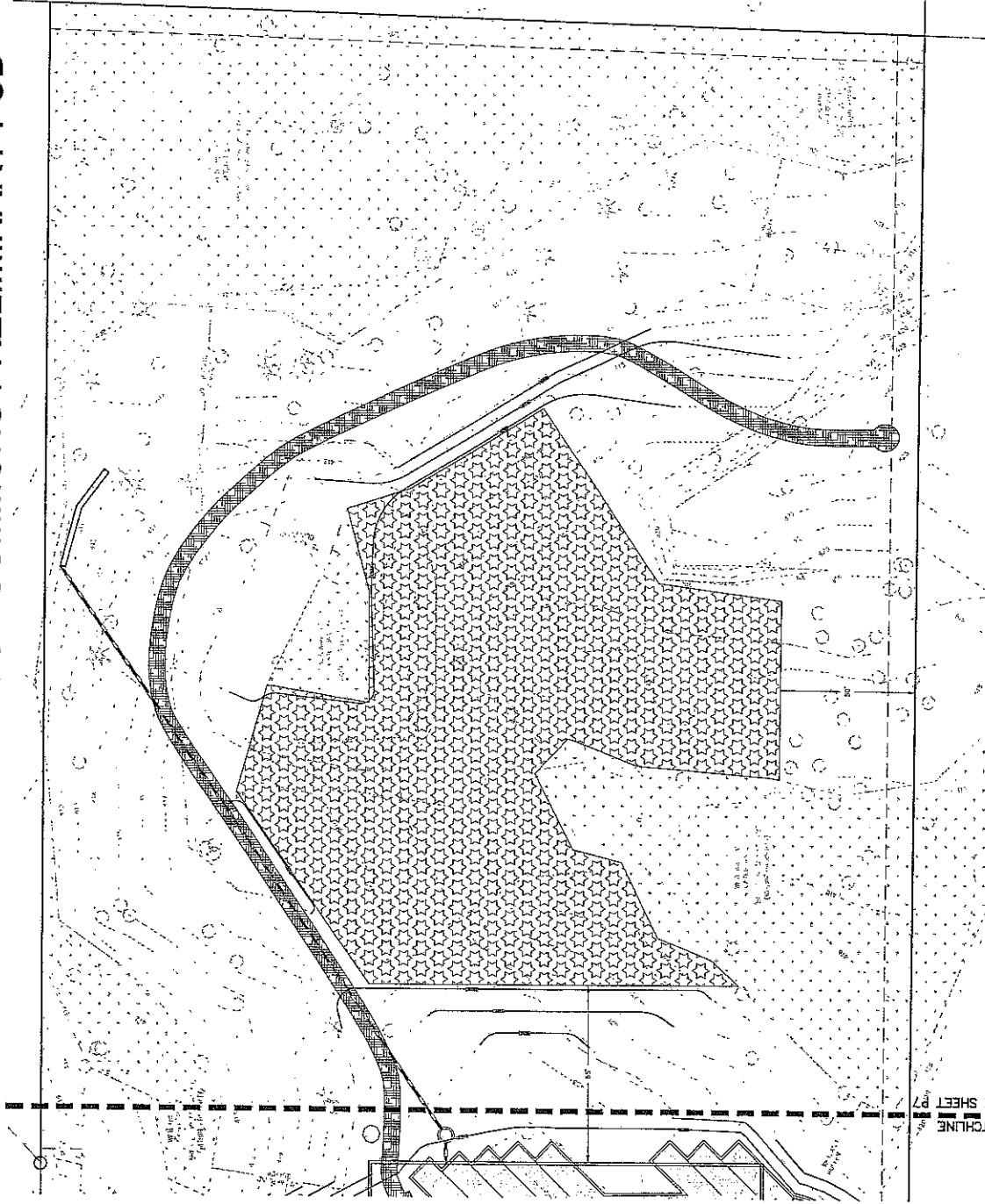
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DATE: 10/10/11
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SHEET: 10000

DESIGNED BY: YAP
PROJECT ENGINEER: MAJ
DATE: 10/10/11
PROJECT: 10000
SHEET: 10000

EXHIBIT 6

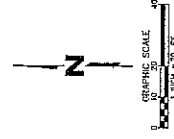
NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M.

FLDDBROOK COMMONS PRELIMINARY PUD



HATCH LEGEND

	CONCRETE, FILLER
	CONCRETE, BASED
	PASSED
	CONCRETE, BASED ENCLOSURE AREAS



City of Renton
Planning Division

NOV 26 2011

APPROVED FOR THE CITY OF RENTON
BY THE CITY ENGINEER
DATE: 11/26/11

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FIELDBROOK COMMONS
PRELIMINARY PUD
CONCEPTUAL GRADING PLAN, EAST
RENTON, WA
17040 NORTH AVENUE SE

PNW HOLDINGS, LLC
9676 SE 36TH STREET SUITE 105
MERCER ISLAND, WA 98040
(206) 586-1147

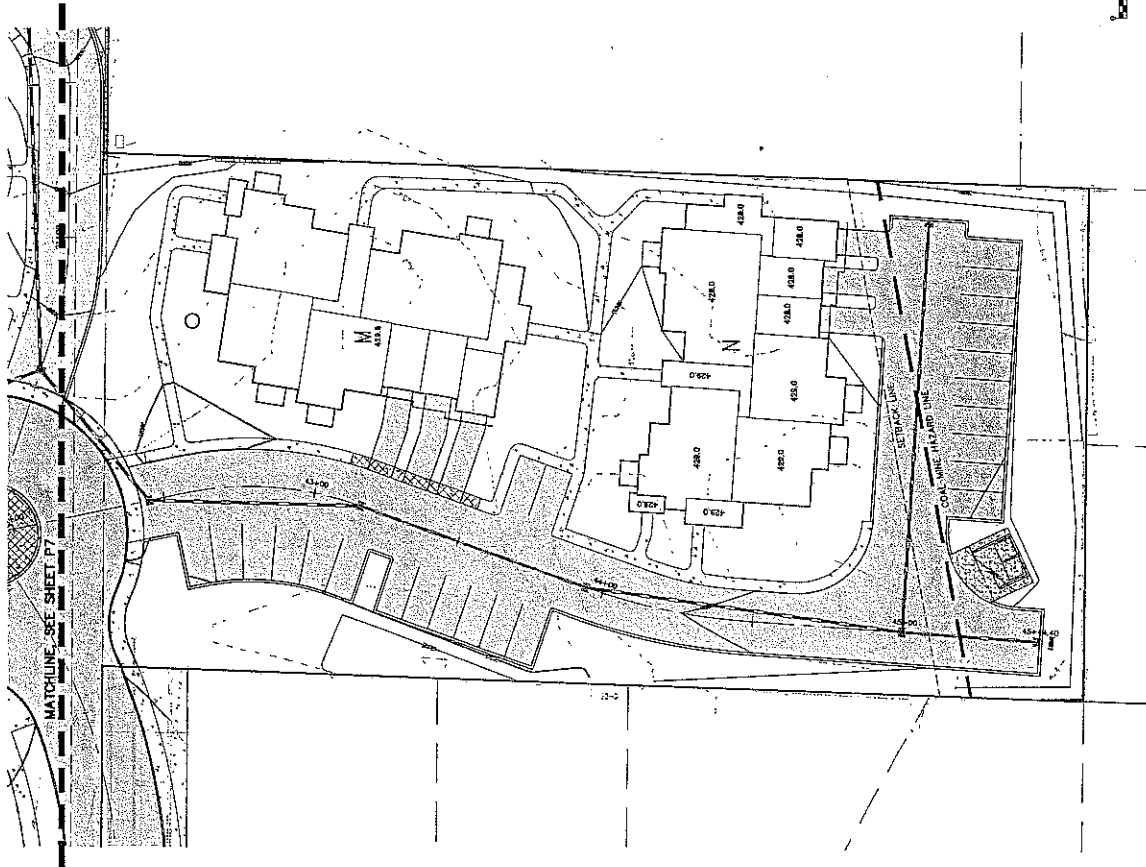
DAVID STRONG
REGISTERED PROFESSIONAL ENGINEER
1000 N. 10TH AVE., SUITE 101
SEASIDE, CA 94060
TEL: (415) 435-1111
FAX: (415) 435-1112
WWW.DSTRONG.COM



PROJECT
17.1812 CITY COMMONS
17.1812 SEASIDE LENDING REVENUES
17.1812

DRAFTED BY: WJ
DESIGNED BY: MAM
PROJECT ENGINEER: MAM
DATE: 12/26/11
PROJECT NO.: 11062
SHEET P8 OF 13

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD



HATCH LEGEND

- CONCRETE, FLUSH
- CONCRETE, RAISED
- PAVEMENT
- CONCRETE, TRASH ENCLOSURE AREAS

City of Renton
 Planning Division

NOV 26 2012

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FIELDBROOK COMMONS
 PRELIMINARY PUD
 CONCEPTUAL GRADING PLAN, SOUTH
 17040 108TH AVENUE SE
 RENTON, WA

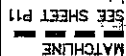
PNW HOLDINGS, LLC
 5875 SE 36TH STREET SUITE 105
 MERCER ISLAND, WA 98040
 (206) 586-1147

D.S. ENGINEERING SERVICES
 10000 10TH AVENUE SE
 RENTON, WA 98040
 (206) 586-1147
 D.S. ENGINEERING SERVICES, INC.
 10000 10TH AVENUE SE
 RENTON, WA 98040
 (206) 586-1147



DATE: 11/26/12
 DESIGNED BY: MAJ
 PROJECT ENGINEER: MAJ
 DATE: 12/26/11
 PROJECT NO.: 11002
 SHEET NO. OF 13

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M.



PNW HOLDINGS, LLC
9675 SE 36TH STREET SUITE 105
MERCER ISLAND, WA 98040
(206) 588-1147

D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
18001 NE 36th PLACE, SUITE 101
MURKIN, WA 98002
425/827-3043 OFFICE
800/827-1491 TOLL FREE



NAME _____
 CYM _____
 NAME _____

DRAFTED BY: YLP
DESIGNED BY: MAJ
PROJECT ENGINEER: MAJ
DATE: 12-28-11
PROJECT NO.: 11061
SHEET P10 OF 13

Division of

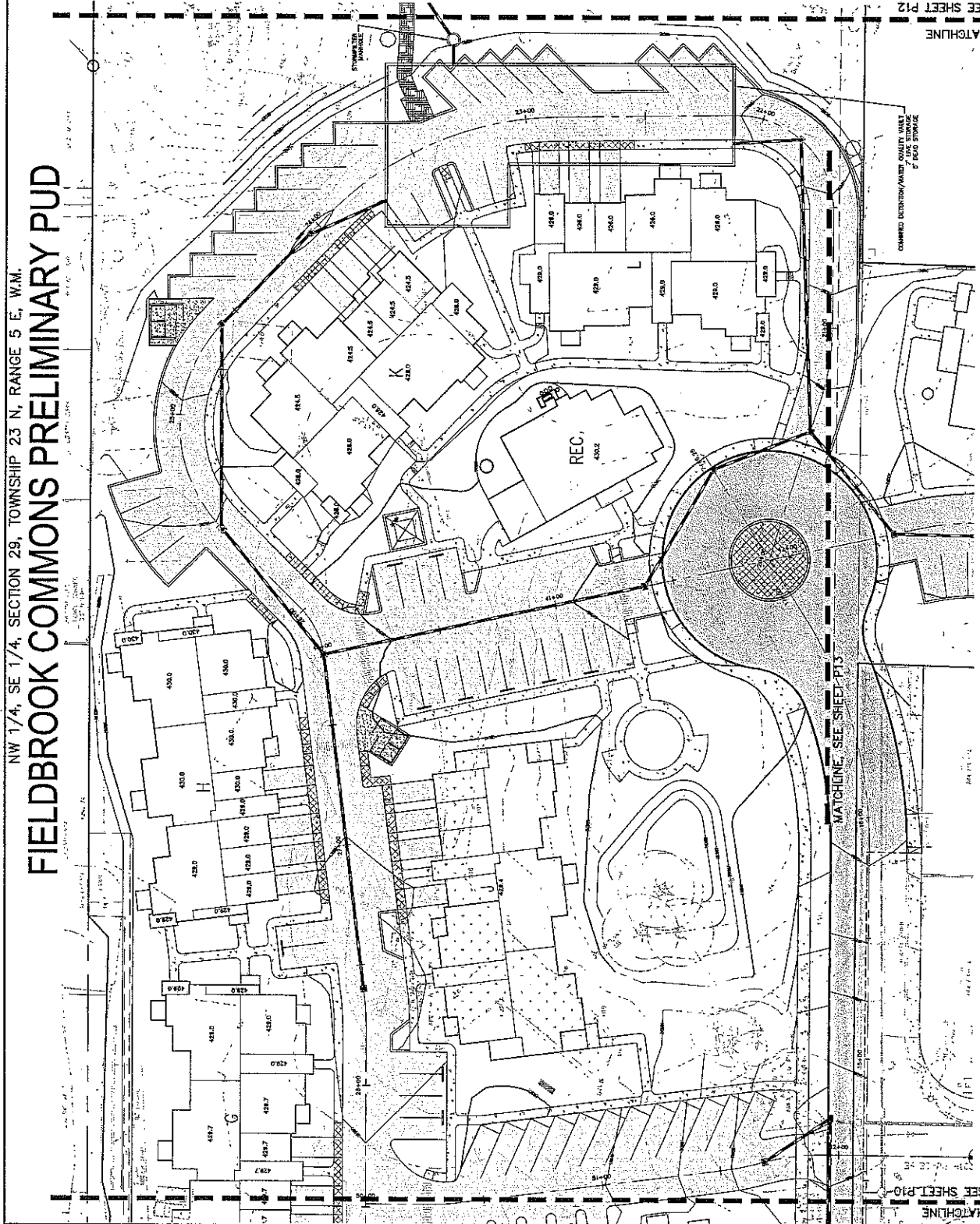
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GRAPHIC SCALE

1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Conclusion**
 6. **References**

EXHIBIT 7

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD



FIELDBROOK COMMONS
 PRELIMINARY PUD
 DRAINAGE CONTROL PLAN, CENTRAL
 17040 100TH AVENUE SE
 RENTON, WA

PNW HOLDINGS, LLC
 6976 SE 36TH STREET SUITE 105
 MERCER ISLAND, WA 98040
 (206) 586-1147

PNW HOLDINGS, LLC
 6976 SE 36TH STREET SUITE 105
 MERCER ISLAND, WA 98040
 (206) 586-1147



DATE: 11/13/12
 BY: JAW

PROJECT NO.: 11002
 SHEET #11 OF 13

City of Renton
 Planning Division

NOV 24 2012

DESIGNED BY: JAW
 PROJECT ENGINEER: JAW
 DATE: 11/13/12
 PROJECT NO.: 11002
 SHEET #11 OF 13

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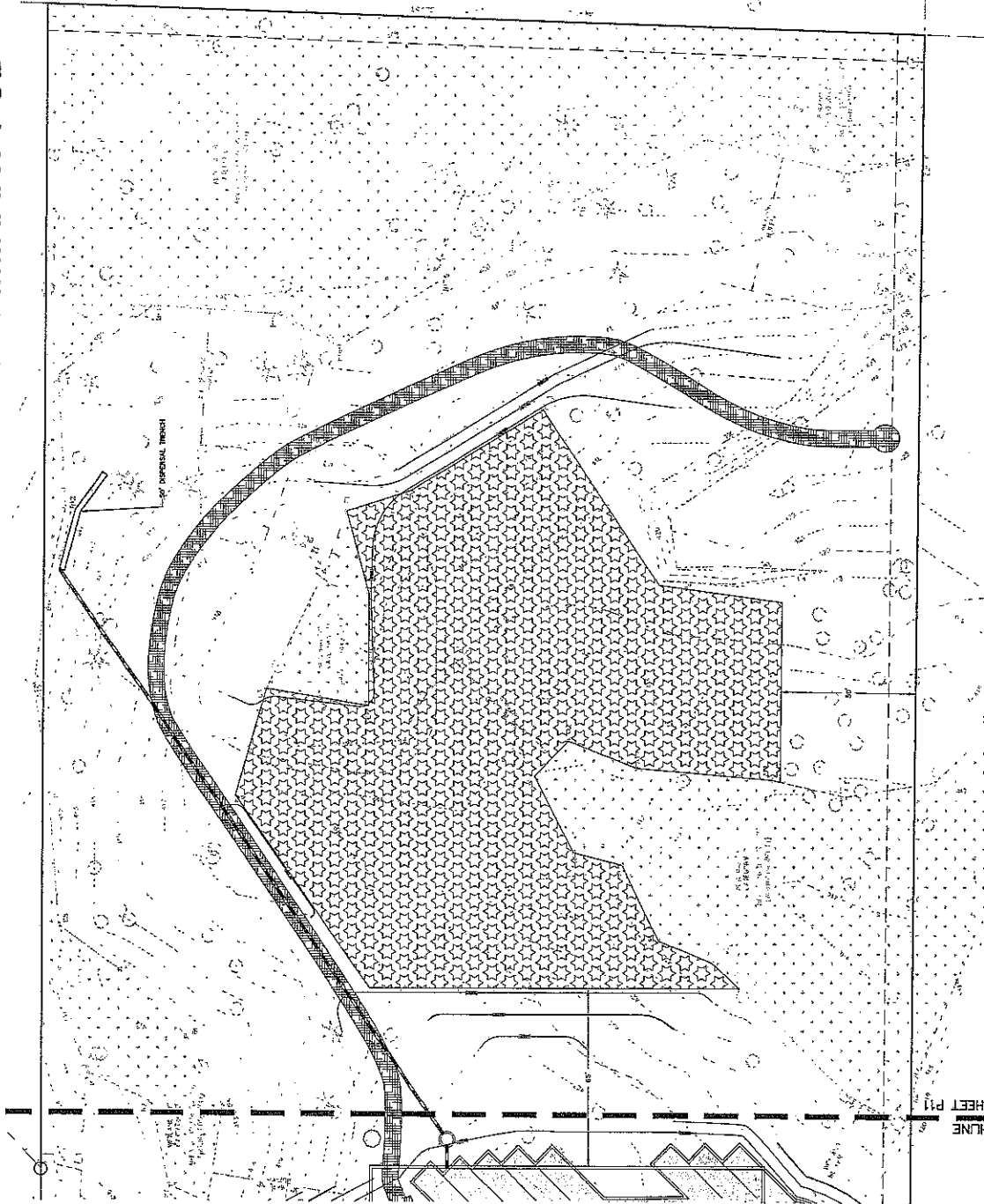
SEE SHEET P12
 MATCHLINE

CHANGED DETENTION/WATER QUALITY WARE
 5' EACH STORAGE

MATCHLINE SEE SHEET P13

SEE SHEET P10
 MATCHLINE

NW 1/4, SE 1/4, SECTION 29, TOWNSHIP 23 N, RANGE 5 E, W.M. FIELDBROOK COMMONS PRELIMINARY PUD



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FIELDBROOK COMMONS
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 DRAINAGE CONTROL PLAN, EAST
 17040 100TH AVENUE SE
 RENTON, WA

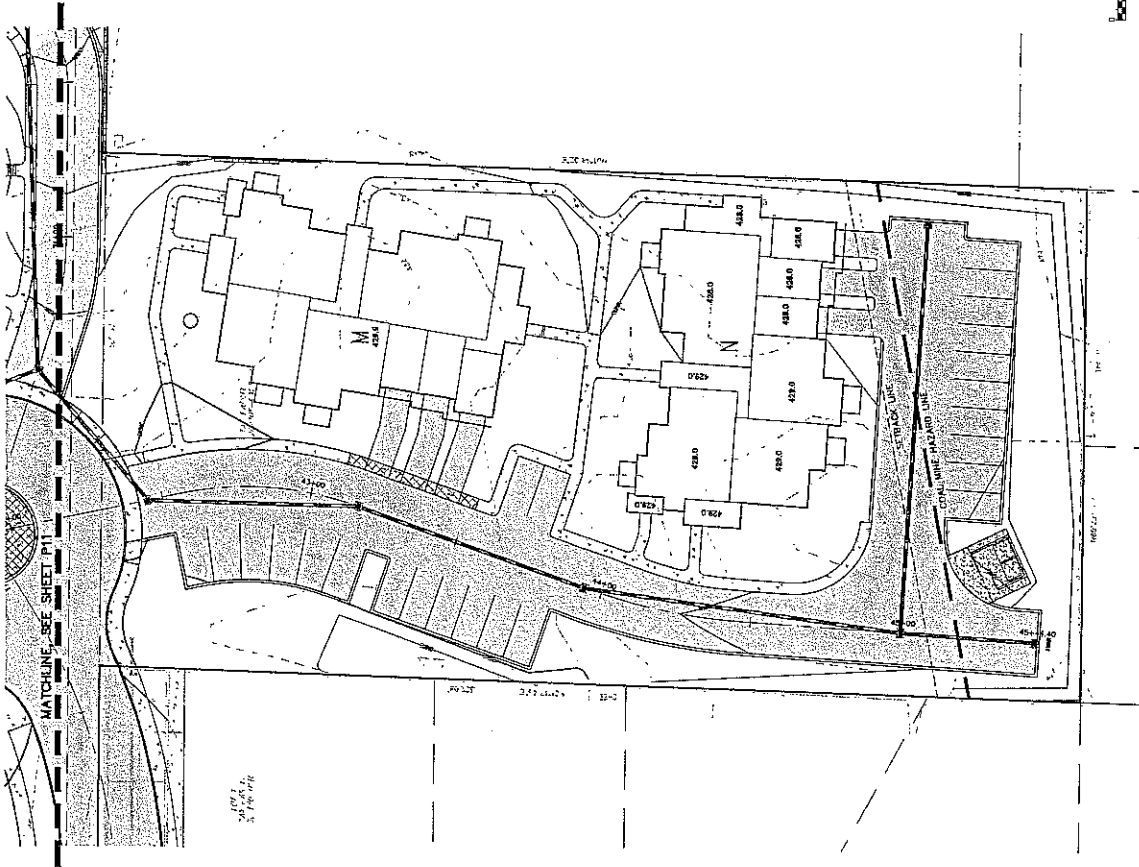
PNW HOLDINGS, LLC
 9575 SE 36TH STREET SUITE 105
 MERCER ISLAND, WA 98040
 (206) 586-1147

DAVID STROUD
 ENGINEERING & PLANNING
 10000 100TH AVENUE SE
 SUITE 100
 RENTON, WA 98040
 (206) 881-1147



DATE: 11/11/17
 DESIGNED BY: MAJ
 CHECKED BY: MAJ
 PROJECT NO: 11002
 SHEET P12 OF 13

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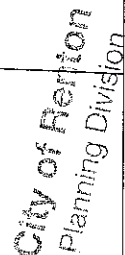
FIELDBROOK COMMONS
 PRELIMINARY PUD
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 17040 108TH AVENUE SE
 RENTON, WA

PNW HOLDINGS, LLC
 9675 SE 36TH STREET SUITE 105
 MESSENGER ISLAND, WA 98040
 (206) 588-1147

D.A. STRONG
 CONSULTING ENGINEERS
 10000 10TH AVENUE SE
 SUITE 100, RENTON, WA 98040
 (206) 881-1111
 WWW.DASTRONG.COM



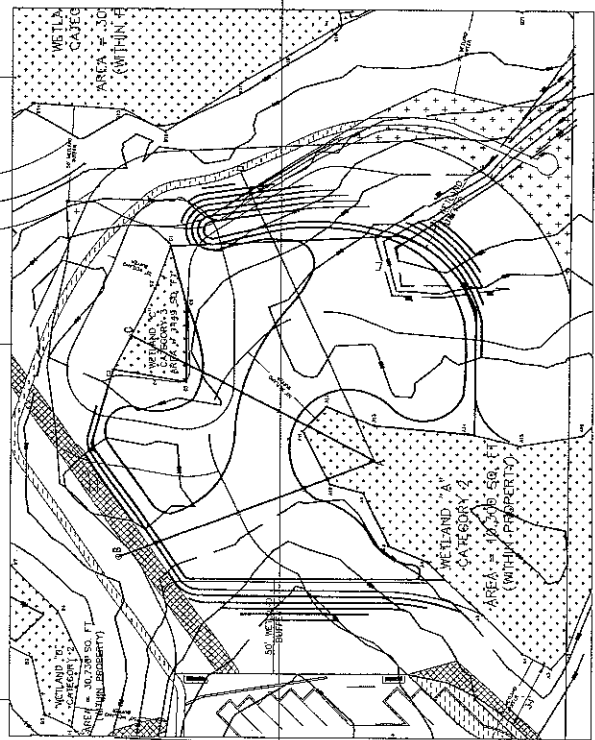
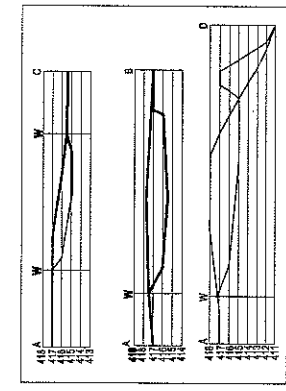
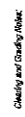
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 DATE: 12/20/11
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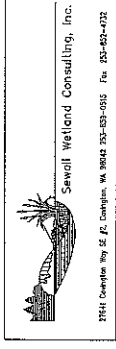


Sewall, Weland & Consulting, Inc.
Ecological Services
27641 Covington Way-Suite 2
Covington, WA 98042
1-859-0515 Fax 253-852-4732


FILDBROOK COMMONS
PNW HOLDINGS, LLC
WETLAND DELINEATION MAP

EXHIBIT 8



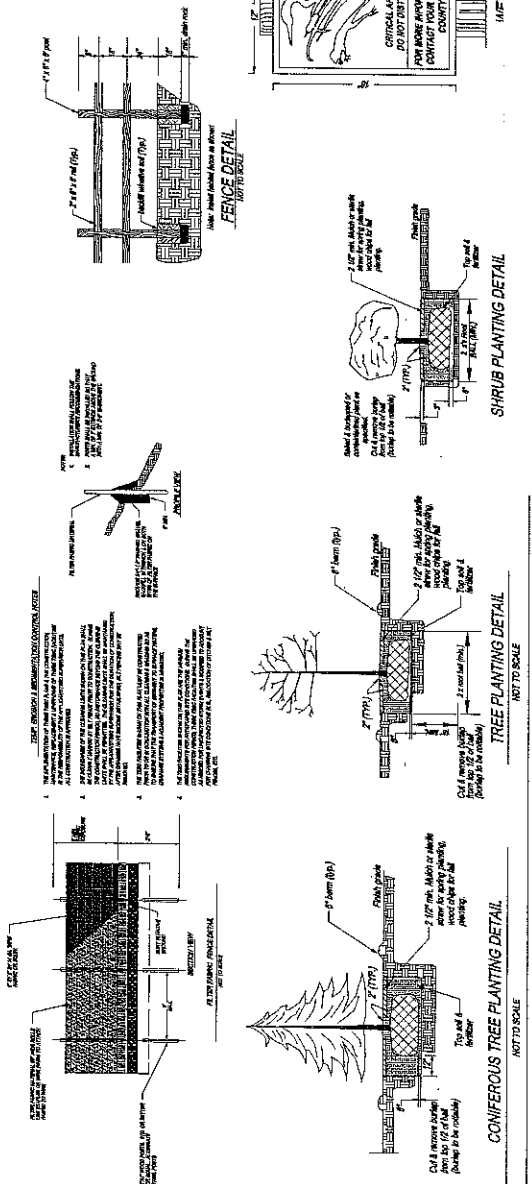


Job No. 11-121
Designed by: FS
Drawn by: TS
Checked by: 05/17/2012
Date: 11-2
SHEET 11-2
OF 11-2



Sawall Wetland Consulting, Inc.
21644 Covertown Hwy SE, P.O. Covertown, WA 98042 253-553-0515 Fax: 253-553-0732

EXHIBIT 10



Open Space Area Required
250sf + 350sf = 600sf x 162 Units = 97,200sf

Open Space Area Provided = 98,492sf

Open Space Provided in Upper Deck = 5,562sf

Active Recreation Area Provided = 17,953sf

Interior/Perimeter Parking Area = 10,300sf

Perimeter Buffer Planting Area = 3,443sf

ROW Buffer Planting Area = 5,660sf

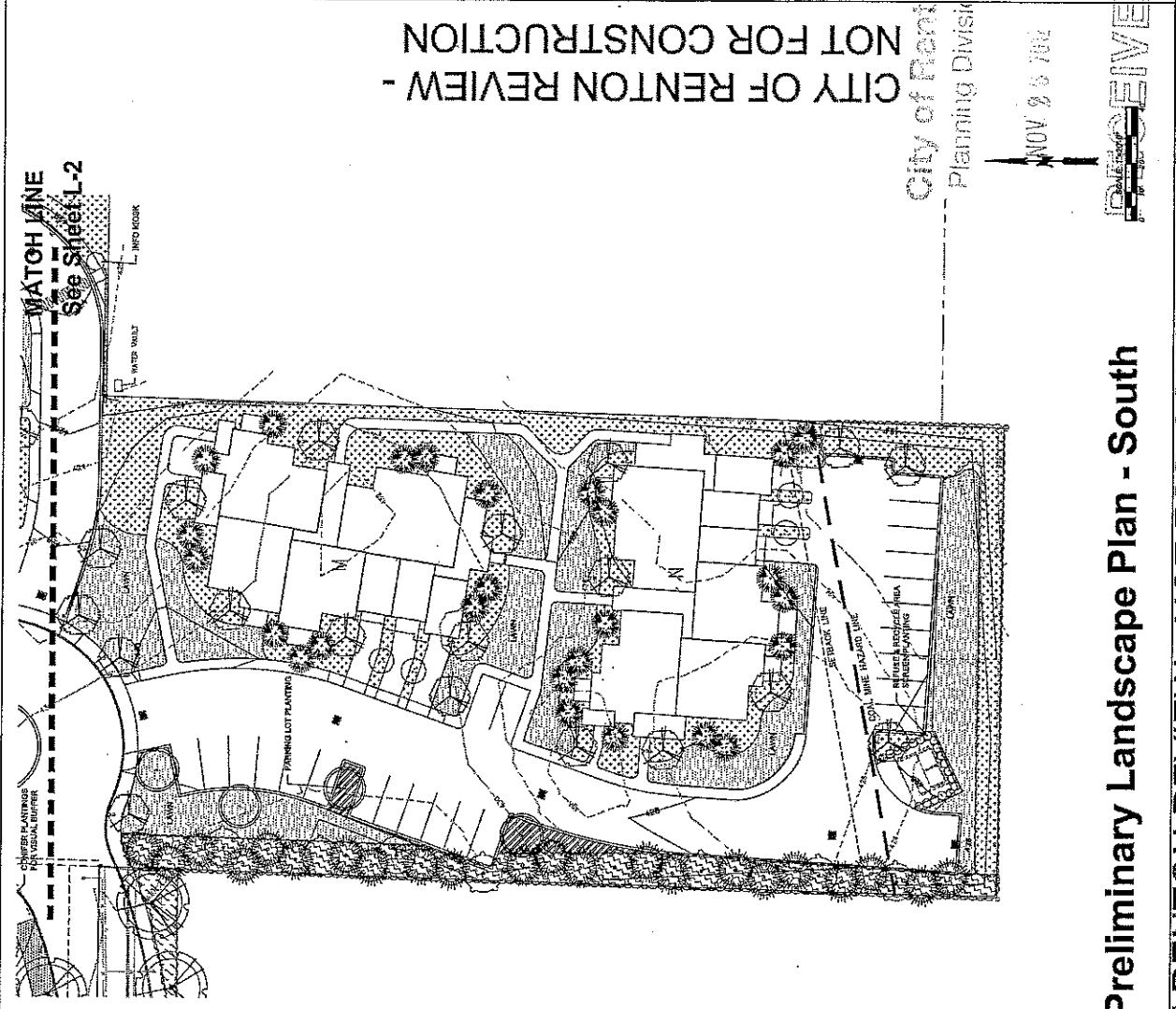


SCALE 1"=200'

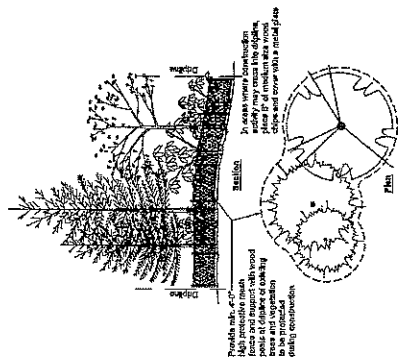


MATCH LINE
See Sheet L-4

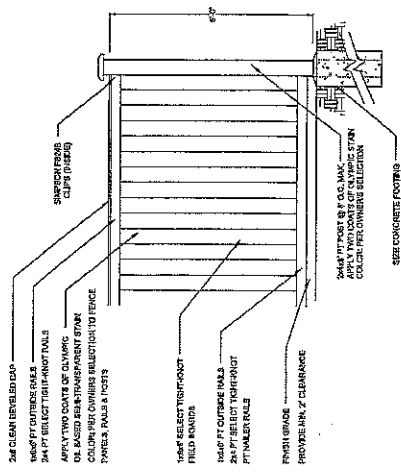
Preliminary Landscape Plan - Mid



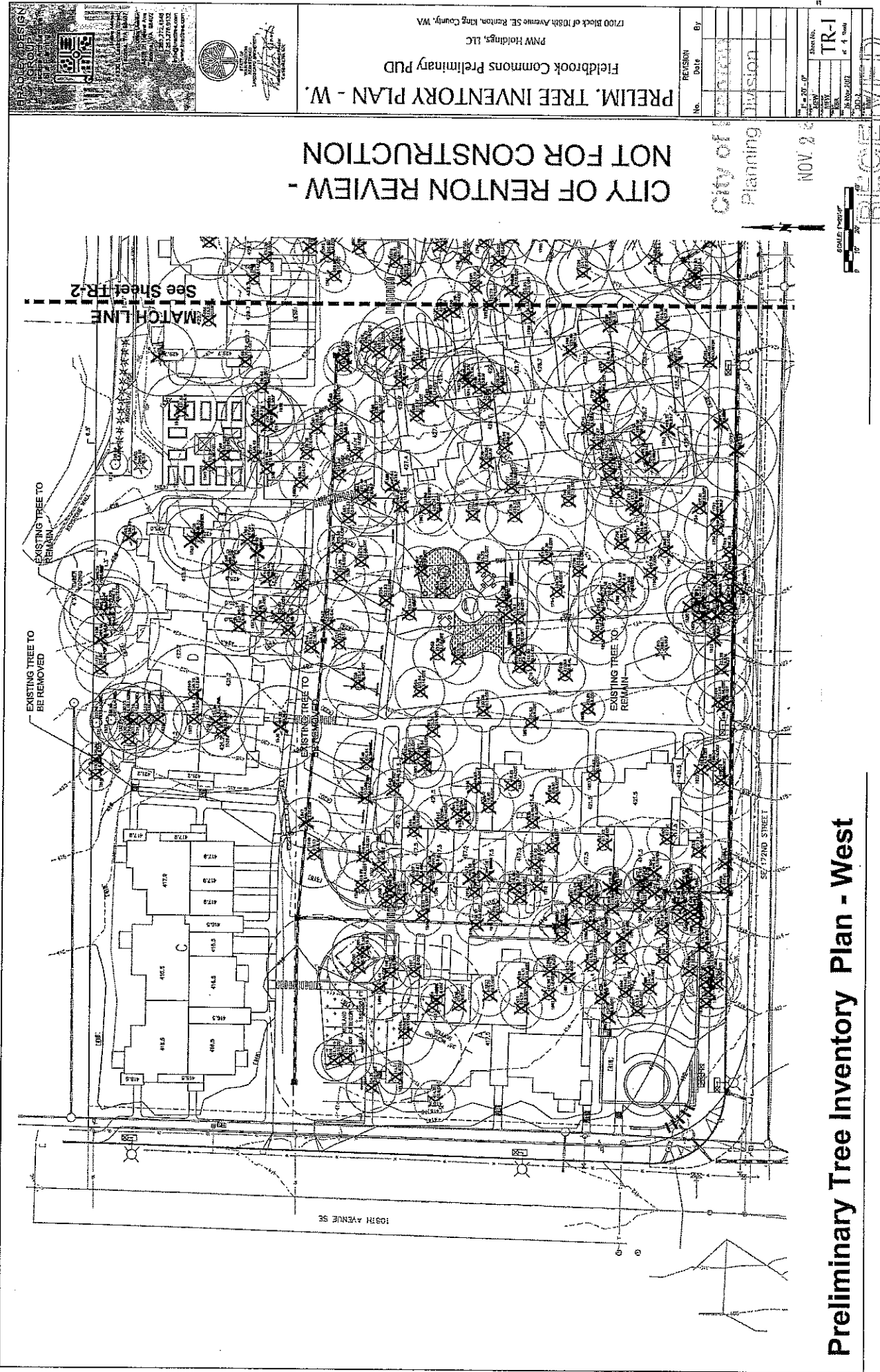
Preliminary Landscape Plan - South



Existing Tree & Vegetation Protection Detail
(Not To Scale)



6' Solid Board Fence Detail
(Not To Scale)



Preliminary Tree Inventory Plan - West

EXHIBIT 12

CITY OF RENTON REVIEW -
NOT FOR CONSTRUCTION

City of Renton
Planning Division

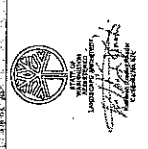
NOV 2 2011

PRELIM. TREE INVENTORY PLAN - W.
Fieldbrook Commons Preliminary PUD
PMW Holdings, LLC
17100 Block of 108th Avenue SE, Renton, King County, WA

REVISION	No.	Date	By

Sheet No.	TR-1
Scale	1" = 20' - 0"
Date	11 Nov 2011
Drawn by	
Checked by	
Approved by	

HEADLEY DESIGN GROUP
10000 1st Avenue SE, Suite 100
Renton, WA 98059
206.271.1345
hdesign@headleydesign.com
www.headleydesign.com



PRELIM. TREE INVENTORY PLAN - MID

Fieldbrook Commons Preliminary PUD

PNW Holdings, LLC

1700 Block of 10th Avenue SE, Renton, King County, WA

REVISION	DATE	BY
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Sheet No. **TR-2**

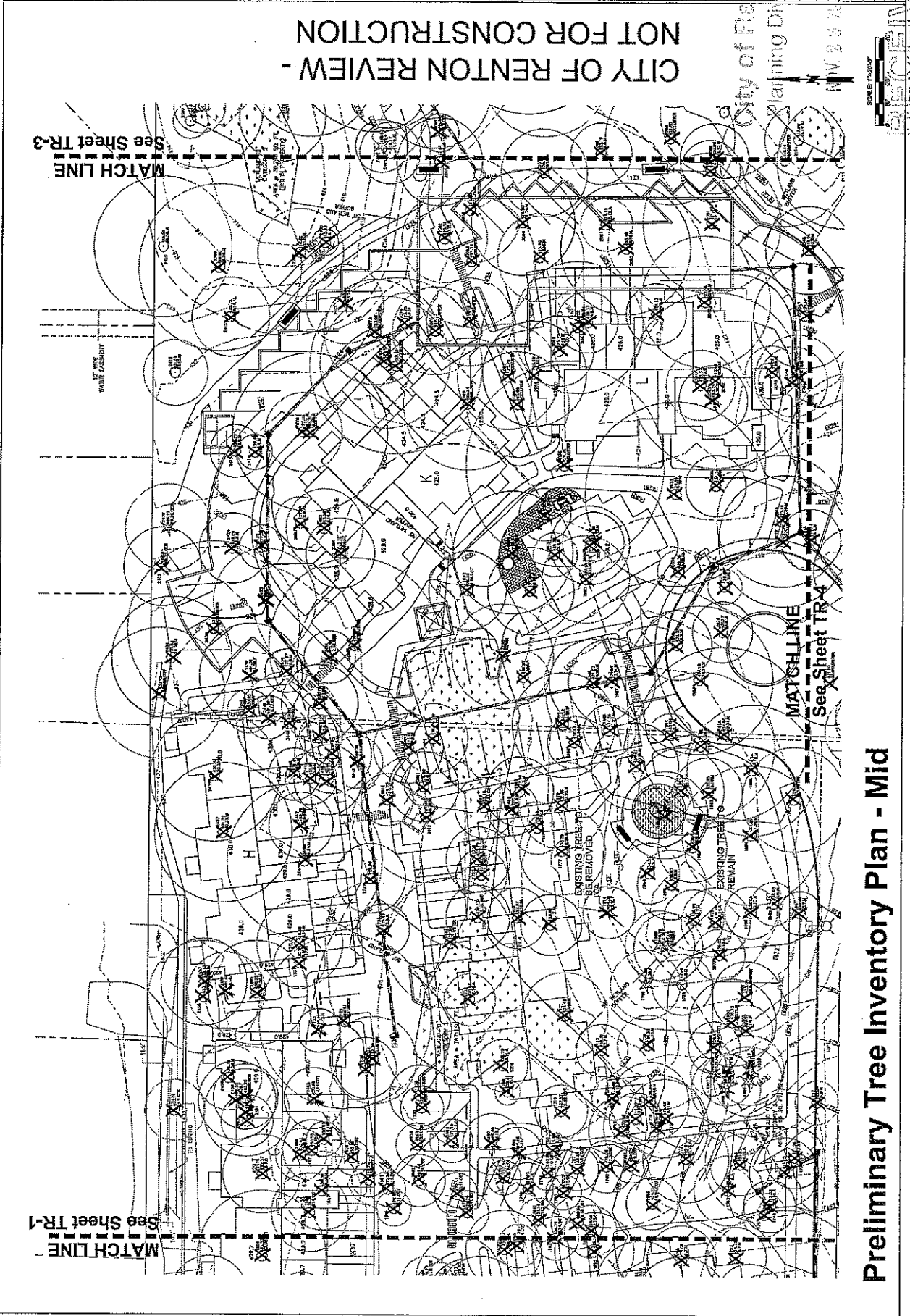
Scale: 1" = 20' 0"

North Arrow

City of Renton Planning Division

Scale: 1" = 20' 0"

North Arrow




Preliminary Tree Inventory Plan - Mid

45

~~EXISTING TREE TO REMAIN - BUT
EXEMPT FROM COUNT BECAUSE OF
SPECIES OR LOCATION IN BUFFER~~

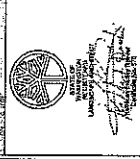
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DATE	26 Nov. 2017	DD-2
NAME		
MFV		
MFV		
MR		

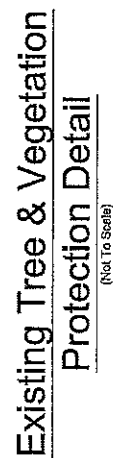


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2000 15th Street, Suite 200
Seattle, WA 98101
Tel: 206.461.1100
Fax: 206.461.1101
www.bradleydesign.com



PNW Holdings, LLC
17100 Block of 108th Avenue SE, Renton, King County, WA



City of Kent
Planning Division

PROFESSIONAL

REVISION		By
No.	Date	

Form 201-0*	Sheet No.	TR-4	2 of 5000
APW			
Signature			
SEP			
Karl			
26 Nov 2013			
DD-2			

PRELIM. TREE INVENTORY PLAN - S.

Fieldbrook Commons Preliminary PUD

PNW Holdings, LLC

17100 Block of 108th Avenue SE, Renton, King County, WA



BRADLEY DESIGN GROUP
10000 LINDEN BLVD
NEW FARMINGTON, CT 06460
Tel: 203/325-1100
Fax: 203/325-1101
E-mail: info@bradleydesign.com
Web: www.bradleydesign.com

Laureen M. Nicolay

From: katrinag26@hotmail.com
Sent: Friday, July 06, 2012 11:59 AM
To: Laureen M. Nicolay
Cc: katrinag26@hotmail.com
Subject: Zoning Land Use Information Request

Public Works/Utility Inquiry

Data from form "Zoning and Land Use Information Request" was received on 7/6/2012 11:59:17 AM.

Zoning and Land Use Information Request

Field	Value
Sender's Name	Katrina Garrison
Sender's Address 1	17032 110th Place SE
Sender's Address 2	
Sender's City, State, Zip	Renton, WA 98055
Sender's Phone	2062261993
Sender's Email	katrinag26@hotmail.com
Question	<p>To whom it may concern: My address is 17032 110th Place SE Renton, WA 98055 (Parcel # 863710-0400). PNW Holdings, LLC has filed an application with the City of Renton to build three story townhouses on the property directly behind my house (Parcel#292305-9022). I have several concerns with this that the City of Renton needs to address: There is more than a foot of standing water on the property. My yard is soggy in the winter and takes a month or more of nice weather to dry, I am concerned with flooding in the area and my house if the city allows this project. I was informed by Vanessa Dolbee that there are several category II wetlands on the property that will be filled as part of this project. WAC 173-183-710 Category II wetlands. The following types of wetlands are classed as category II wetlands: Documented habitat recognized by federal and state agencies for sensitive plant, animal, or fish species; or Documented priority habitats and species recognized by state agencies; or Wetlands with significant functions which may not be adequately replicated through creation or restoration; or Wetlands with significant habitat value; or Documented wetlands of local significance. Think flood control, water supply, fish and wildlife. Every natural wetland, from a high mountain bog to a scummy lowland pond, serves as a flood control device and water filter. These places and the plants that evolved there can reduce runoff at the rate of about a million gallons per year. Multiply that by the magnitude of wetland loss that's been tolerated in the Puget Sound region in the past 100 years, and you begin to see why floods have become worse, Puget Sound water quality</p>

EXHIBIT 13

Field	Value
	<p>has degraded, and salmon runs have belly-flopped. • What is going to happen to the water? • Category 2 wetlands cannot be replicated, they will be gone forever. Does the city of Renton support this? • Previously this property was under the jurisdiction of King County there signs all along the fences around the property that state "protect our wetlands." Does the city of Renton take the stance that it is ok to demolish and build on our sacred wetlands? • There is also wildlife on that property. What will happen to these animals? Do you have a plan to place them somewhere safe? Or do you just let them get hit by cars? • Traffic- I called the City of Renton and learned that there was a traffic study waiver provided for this project. On the mayors page he states that one of his major concerns is improving traffic in Renton. Why was a traffic study waiver provided? (I called and spoke to Arnetta Henniger on 11/2/2011 since she is the person who waived the traffic study, she could not tell me why it was waived and sounded very frustrated with me, I asked her if I was frustrating her she responded that it wasn't me it was her workload. As a homeowner, citizen and taxpayer I am concerned that Renton City employees are not doing their jobs properly because they are overworked. Since, I called they decided to they would require a "limited traffic study" she didn't have the time to tell me what that is, please tell me what the difference between a limited and full traffic study are? o Building 100, 3 bedroom units on that property is going to increase traffic significantly. I have sat through 4 rounds of stoplights on the corner of 108th and Benson Dr on more than one occasion for up to 12 minutes (I timed it), just to go to Fred Meyer to get dinner. What does the City of Renton plan to do with the traffic on that corner as well as Benson Dr. S and SE? o Driving west on Carr road to get on 167 will back up to 106th Ave at times, not due to accidents but the number of cars on the road. Another apartment complex was just built on the corner of Carr road and 106th. Was there a traffic study completed? It can take up to 30 minutes to get down that hill, what does the city plan on doing about that? Just continue to build more apartments? • Personally, this is very frustrating as this will further decrease my property value, I have already lost 65K in value and I am scared to see what this will do. I will lose privacy (one of the reasons I bought the house) I will now have three story apartment buildings looking directly into my house.. Below is the Mayors statement on the State of the City for 2011, I hate to say you are not living up to your goals and visions. We must continue to work together to make sure that our city is uniquely prepared and effectively protected against fires, floods and any disaster. With the new Census numbers putting us at over 90,000 residents, Renton is now the 4th largest city in King County and the 9th largest in the state. Our task ahead is very exciting -but also challenging. The buzz word in government these days is "green!" And it should be. We are committed to moving forward with a "green" agenda where we lead by example and promote a healthy environment. We have made significant progress. Trees provide numerous environmental, social and economic benefits for people, yet urban areas present challenging environments for trees to grow and survive. We completed the urban forestry plan for Renton to ensure that we manage and protect the tree canopy in our city. For the second year in a row, we received the Tree-City USA designation and also received our first Tree City USA Growth award. I know this is a long letter but please take the time to read. Thank you, Katrina Garrison</p>
Sender's Name	Field Brook Apartments

Email "Zoning Land Use Information Request" originally sent to lnicolay@rentonwa.gov from katrinag26@hotmail.com on 7/6/2012 11:59:17 AM. The following were also sent a copy: katrinag26@hotmail.com.

Sylva Jean Coppock
10813 SE 172nd Street, Unit 2A
Renton, WA 98055-5966
Phone: 425-235-8076 ~ Email: SylvaCop@comcast.net

September 5, 2011

CITY OF RENTON
RECEIVED

JUL 06 2012

BUILDING DIVISION

City of Renton
Community & Economic Development
Attention: City Clerk
Renton City Hall
1055 South Grady Way
Renton, WA 98057

Regarding: Surplus Property Fire Station 13

I have some concerns about the disposition of the property referenced, and the forested area adjacent on the east and south sides of that parcel of land.

I have lived at Kelsey Court Condominiums on SE 172nd Street for nearly 20 years and have seen a great deal of wildlife in this area, particularly coming and going from the wooded parcel of land adjacent to where the fire station once stood. At various times I have seen as many as three raccoons at a time frequenting the area and have spotted a coyote from time to time. A doe, with her fawns frequents the woods each spring, and I've watched deer standing on the shoulder of the old Benson Road, waiting for traffic to clear so they can safely cross the road. There are also large communities of rabbits around the property and eagles often rest in the trees.

I would be opposed to someone buying that small parcel of property, and then perhaps expanding their holdings to the adjacent wooded area, building a new housing development and, as a result, driving the wildlife away.

I will plan to attend the hearing on September 12, 2011 to listen to the public comments from others in this area.


Sylva Coppock

Sylva Jean Coppock

10813 SE 172nd Street, Unit 2A

Renton, WA 98055-5966

Phone: 425-235-8076 ~ Email: SylvaCop@comcast.net

July 7, 2012

City of Renton
Department of Community & Economic Development
Attention: Vanessa Dolbee, Senior Planner, CED-Planning Division
Renton City Hall
1055 South Grady Way
Renton, WA 98057

CITY OF RENTON
RECEIVED
JUL 06 2012
BUILDING DIVISION

Regarding: Construction of 162 Residential Multi-Family Units at 17040 108th Avenue SE.

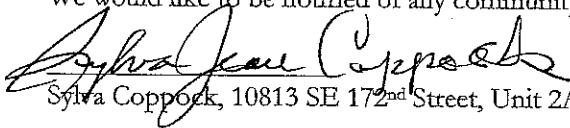
I have concerns about the decision to build 162 apartments to be known as Fieldbrook Commons on the 10.77 acres of land at the above referenced address.

I have lived at Kelsey Court Condominiums just south of SE 172nd Street for nearly 20 years and have seen a great deal of wildlife in this area, particularly coming and going from the wooded parcel of land north of 172nd and east of 108th. Last week as I exited the driveway from the complex two beautiful deer were grazing in the grass alongside the east/west road. A doe, with her fawns frequents the woods each spring, I see them often in the spring and summer. And I've watched deer standing on the shoulder of the highway, waiting for traffic to clear so they can safely cross the 108th. At various times I have seen as many as three raccoons at a time frequenting the area and have spotted a coyote from time to time. There are also large communities of rabbits around the property and eagles often rest in the trees. Development has crowded out the wildlife to the point where there is no place for them to go and they are in constant danger of being struck by vehicular traffic that speeds much too fast up and down the old Benson Road.

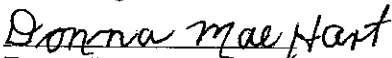
The small island of trees on this property is an aesthetic not to be dismissed as unimportant. There is so little green space left in our crowded cities. Please take into consideration what we are all losing by continuing to build these mega-developments, which are so densely populating the landscape.

Another aspect to consider is the traffic nightmare that will result from three more access locations along SE 172nd Street, which already carries a constant stream of traffic from the 36 units of Kelsey Court Condominiums and from ten single family residential homes in a cul de sac immediately east of the condo-complex. Since there is no traffic light at the intersection of 172nd and 108th there is typically a wait for cars to exit or enter 108th Avenue SE, especially during the morning and evening commute times. There have already been several accidents at this intersection over the years.

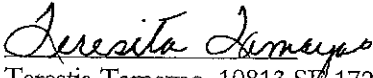
We would like to be notified of any community meetings or public hearings scheduled in regard to the project.



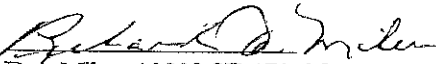
Sylva Coppock, 10813 SE 172nd Street, Unit 2A, Renton, WA 98055 (425-235-8076)



Donna Hart, 10813 SE 172nd Street, Unit 2B, Renton, WA 98055 (425-271-0148)



Terestia Tamayao, 10813 SE 172nd Street, Unit 2C, Renton, WA 98055 (425-226-7823)



Dan Miles, 10809 SE 172nd Street, Unit 1B, Renton, WA 98055 (425-228-7164)

Enclosure: Letter submitted on September 5, 2011, regarding Surplus Property, former Fire Station 13 site.

Vanessa Dolbee

From: McGraner, Patrick (ECY) <patrick.mcgraner@ecy.wa.gov>
Sent: Monday, July 09, 2012 1:10 PM
To: Vanessa Dolbee
Subject: Fieldbrook Commons LUA12-001, ECF, PPUD -- SEPA Comments

Follow Up Flag: Follow up
Flag Status: Completed

Dear Vanessa Dolbee,

With regards to the application of Fieldbrook Commons, I am submitting these brief comments for the record for SEPA review.

Per the project description the applicant is proposing to fill three on-site wetlands. Ecology asks that the City of Renton condition approval of any site work with the following stipulation:

The applicant shall obtain all necessary state and federal authorizations for wetland impacts prior to beginning any ground disturbing activities or timber harvest.

Furthermore, please note that Ecology generally does not support wetland creation within existing forested buffer areas. The buffer area proposed for wetland creation has been described as being partially degraded but Ecology notes that the city's buffers are smaller than Ecology's recommended standards for Category II wetlands and that taken together in the whole, this project is proposing significant impacts to buffer functions in areas that that lie both inside and outside of the city's standard buffers including buffer reductions adjacent to the westernmost portions of Wetlands A & B adjacent to wetland flags A3 and B4.

Thank you for the opportunity to comment on the project of Fieldbrook Commons.

Sincerely,

Patrick McGraner
Wetlands Specialist
Department of Ecology/NWRO
3190 160th Ave SE
Bellevue, WA 98008
425-649-4447
patrick.mcgraner@ecy.wa.gov

EXHIBIT 14

Vanessa Dolbee

From: Karen Walter <KWalter@muckleshoot.nsn.us>
Sent: Monday, July 09, 2012 4:58 PM
To: Vanessa Dolbee
Subject: RE: Fieldbrook Commons LUA12-001, ECF, PPUD -- SEPA Comments

Follow Up Flag: Follow up
Flag Status: Completed

Vanessa,
Thank you for sending us WDOE's SEPA comments for the proposed Fieldbrook Commons project referenced above. We agree with WDOE's comments and recommend that the applicant provide an additional analysis in-depth regarding the existing wetland conditions, the functions of the existing forested buffer and demonstration of no net loss given potential temporal impacts to the forested wetland buffer. As a result of this additional, in-depth analysis, the project may need additional mitigation to ensure that this project complies with local, state, and federal regulation regarding impacts and no net loss.

Best regards,
Karen Walter
Watersheds and Land Use Team Leader

*Muckleshoot Indian Tribe Fisheries Division
Habitat Program
39015 172nd Ave SE
Auburn, WA 98092
253-876-3116*

From: Vanessa Dolbee [<mailto:VDolbee@Rentonwa.gov>]
Sent: Monday, July 09, 2012 4:52 PM
To: Karen Walter
Subject: FW: Fieldbrook Commons LUA12-001, ECF, PPUD -- SEPA Comments

Karen,

See DOE comments below on the subject project.

Vanessa Dolbee
Senior Planner

Department of Community & Economic Development
City of Renton
Renton City Hall - 6th Floor
1055 South Grady Way
Renton, WA 98057
425.430.7314

From: McGraner, Patrick (ECY) [<mailto:patrick.mcgraner@ecy.wa.gov>]
Sent: Monday, July 09, 2012 1:10 PM
To: Vanessa Dolbee
Subject: Fieldbrook Commons LUA12-001, ECF, PPUD -- SEPA Comments

EXHIBIT 15

Vanessa Dolbee

From: McGraner, Patrick (ECY) <patrick.mcgraner@ecy.wa.gov>
Sent: Thursday, July 26, 2012 7:49 AM
To: Ed Sewall
Cc: justin@americandclassichomes.com; Vanessa Dolbee
Subject: RE: Fieldbrook Renton

Follow Up Flag: Follow up
Flag Status: Completed

Thank you Ed,

This is a good summary of our conversation. I would only add that I also wanted to implicitly remind the city that current buffer standards do not meet BAS and that when the time comes to update their CAO, this will need to be addressed.

Sincerely,

Patrick McGraner, Wetlands Specialist, Department of Ecology/SEA/NWRO

From: Ed Sewall [mailto:esewall@sewallwc.com]
Sent: Thursday, July 26, 2012 7:42 AM
To: McGraner, Patrick (ECY)
Cc: justin@americandclassichomes.com; 'Vanessa Dolbee'
Subject: Fieldbrook Renton

Patrick, back on the 17th you and I discussed the Field brook project in the City of Renton on the phone. I passed that information onto the city through an email, but they would like something in writing from you confirming our conversation. I think just a reply to this email would suffice. I informed them that during our conversation you mentioned;

1. You were less concerned about the project once you got a chance to go through the report in more detail. We discussed how the ratings of the City of Renton don't match up with the WADOE rating system. The Category 2 wetlands under the City rating system equate in this instance to Category 3 wetlands under the WADOE system.
2. You were just responding to a citizen request to review the project, and;
3. That since there was <1/4 acre of fill, under a US Army Corps Nationwide 29 permit, which would be the permit we would receive for a project like this, WADOE would not be required to issue 401 cert., nor would WADOE be reviewing the mitigation plan under this scenario.

Thanks!
Ed Sewall
Sewall Wetland Consulting, Inc.
(253) 859-0515

EXHIBIT 16

Dear Vanessa Dolbee,

With regards to the application of Fieldbrook Commons, I am submitting these brief comments for the record for SEPA review.

Per the project description the applicant is proposing to fill three on-site wetlands. Ecology asks that the City of Renton condition approval of any site work with the following stipulation:

The applicant shall obtain all necessary state and federal authorizations for wetland impacts prior to beginning any ground disturbing activities or timber harvest.

Furthermore, please note that Ecology generally does not support wetland creation within existing forested buffer areas. The buffer area proposed for wetland creation has been described as being partially degraded but Ecology notes that the city's buffers are smaller than Ecology's recommended standards for Category II wetlands and that taken together in the whole, this project is proposing significant impacts to buffer functions in areas that lie both inside and outside of the city's standard buffers including buffer reductions adjacent to the westernmost portions of Wetlands A & B adjacent to wetland flags A3 and B4.

Thank you for the opportunity to comment on the project of Fieldbrook Commons.

Sincerely,

Patrick McGraner
Wetlands Specialist
Department of Ecology/NWRO
3190 160th Ave SE
Bellevue, WA 98008
425-649-4447
patrick.mcgraner@ecy.wa.gov

Vanessa Dolbee

From: McGraner, Patrick (ECY) <patrick.mcgraner@ecy.wa.gov>
Sent: Thursday, December 27, 2012 3:22 PM
To: Vanessa Dolbee
Subject: RE: Fieldbrook Commons LUA12-001

Hi Vanessa,

I am home sick today and don't have the specifics on this project with me but when I spoke to Ed Sewell some months ago about my concerns, he described the existing conditions to me with regards to the past disturbances from mining and other activities. He also described to me in detail the existing plant community such that I was no longer concerned about the proposed location of the mitigation area within a forested area. Additionally, this application would likely meet the conditions for a Federal Nationwide Permit and would not require Ecology approval.

I hope this is sufficient.

Sincerely,

Patrick McGraner/Wetlands Specialist/WSDOE

From: Vanessa Dolbee [VDolbee@Rentonwa.gov]
Sent: Wednesday, December 26, 2012 11:15 AM
To: McGraner, Patrick (ECY)
Subject: Fieldbrook Commons LUA12-001

Patrick,

Thank you for your voice mail regarding the wetland creation proposed in the forested buffer included in the subject project proposal. Would it be possible for you to provide me with an e-mail documenting DOE's new position on the proposal. As the last e-mail received from DOE did not support the proposal and Ed Sewell's e-mail stated the DOE was "less concerned". Which could mean a number of things.

Thank you for the follow up clarifying DOE's position on the subject projects mitigation proposal.

Vanessa Dolbee

Senior Planner

Department of Community & Economic Development
City of Renton
Renton City Hall - 6th Floor
1055 South Grady Way
Renton, WA 98057
425.430.7314

*New wetland A/C
Wetland*

Wetland name or number _____

WETLAND RATING FORM - WESTERN WASHINGTON
Version 2 - Updated July 2004 to increase accuracy and reproducibility among users
Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland (if present) New Mt. Indian Date of site visit _____
 Rated by _____ Trained by Ecology? Yes No Date of training _____
 SEC TWNSHP RNOB: _____ Is S/T/R in Appendix D? Yes No
 Map of wetland unit: Figure _____ Estimated size 0.7 ha

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score >= 70
 Category II = Score 51-69
 Category III = Score 30-50
 Category IV = Score < 30

Score for Water Quality Functions 24
 Score for Hydrologic Functions 20
 Score for Habitat Functions 23
 TOTAL score for Functions 67

Category based on SPECIAL CHARACTERISTICS of wetland

I II Does not Apply

Final Category (choose the "highest" category from above)

2

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics	Wetland HGM Class used for Rating
Excluding	Depressional
Natural Heritage Wetland	Riverine
Big	Lake-fringe
Mature Forest	Slope
Old Growth Forest	Field
Coastal Lagoon	Freshwater Tidal
Intertidal	
None of the above	Check if unit has multiple HGM classes present

Wetland Rating Form - Western Washington
 version 2 To be used with Ecology Publication 04-70-023

August 2004

Wetland name or number _____

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Circle list for Wetland That May Need Additional Protection (In addition to the protection recommended for its category)	YES	NO
SP1. Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (728 species)? For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		<input checked="" type="checkbox"/>
SP2. Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species? For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		<input checked="" type="checkbox"/>
SP3. Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?		<input checked="" type="checkbox"/>
SP4. Does the wetland unit have a local significance in addition to its functions? For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		<input checked="" type="checkbox"/>

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

City of Renton
 Planning Division

SEP 18 2012

RECEIVED

Wetland Rating Form - Western Washington
 version 2 Updated with new WDFW definitions Oct. 2008

Wetland name or number _____

Classification of Wetland Units in Western Washington

If the hydrologic criteria listed in each question do not apply to the entire unit, being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides (i.e. except during floods)?
NO - go to 2
YES - the wetland class is Tidal Fringe
If yes, is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? YES - Freshwater Tidal Fringe NO - Saltwater Tidal Fringe (Estuarine)
(If your wetland can be classified as a Freshwater Tidal Fringe use the term for Riverine wetlands. If it is Saltwater Tidal Fringe it is rated as an Estuarine wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category 1 and 11 estuarine wetlands have changed (see p. 7).
2. The entire wetland unit is flat and precipitation is the only source (>99%) of water to it.
Groundwater and surface water runoff are NOT sources of water to the unit.
NO - go to 3
YES - The wetland class is Plains
If your wetland can be classified as a "Plains" wetland, use the term for Depressional wetlands.
3. Does the entire wetland unit meet both of the following criteria?
The vegetated part of the wetland is on the shores of a body of permanent open water (without any vegetation on the surface) at least 20 acres (8 ha) in size;
At least 30% of the open water area is deeper than 6.6 ft (2 m)?
NO - go to 4
YES - The wetland class is Lake-Fringe (Lacustrine Fringe)
4. Does the entire wetland unit meet all of the following criteria?
The wetland is on a slope (slope can be very gradual).
The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
The water leaves the wetland without being impounded?
NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually < 1 ft diameter and less than 1 foot deep).
NO - go to 5
YES - The wetland class is Slope

Wetland name or number _____

5. Does the entire wetland unit meet all of the following criteria?

The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river

NO - The overbank flooding occurs at least once every two years.

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.

NO - go to 6
YES - The wetland class is Riverine

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year. This means that any outlet, if present, is higher than the interior of the wetland.

NO - go to 7
YES - The wetland class is Depressional

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding. The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8
YES - The wetland class is Depressional

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC CRITERIA DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within your wetland. NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM Classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-Fringe	Lake-Fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-Fringe	Depressional
Salt Water Tidal Fringe and any other class of Freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

If you are unable still to determine which of the above criteria apply to your wetland, or if you have more than 2 HGM classes within a wetland boundary, classify the wetland as Depressional for the rating.

Wetland name or number _____

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS - Indicators that the wetland unit functions to improve water quality		Points (see p. 36)
D	D 1. Does the wetland unit have the potential to improve water quality? D 1.1 Characteristics of surface water flows out of the wetland that is a depression without surface water leaving it (no outlet). Unit has an intermittent flow, OR highly conditioned permanently flowing outlet. Points = 2 Unit has an unintermittent, or slightly conditioned permanently flowing outlet. Points = 1 Unit is a "flat" depression (Q, 7 on key) or in the flats class, with permanent surface water and no obvious natural outlet and/or outlet is a man-made ditch. Points = 1 <i>(If ditch is not permanently flowing area unit is "intermittently flowing")</i>	Figure 3
D	S 1.2 The soil 2 inches below the surface (or 1/2 inch if clay or organic) has SSCs (significance) YES NO Private photo or drawing	0
D	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest) in the wetland class: Wetland has persistent, ungrazed, vegetation > 95% of area. Points = 3 Wetland has persistent, ungrazed, vegetation > 1/2 of area. Points = 1 Wetland has persistent, ungrazed, vegetation < 1/2 of area. Points = 0 Head of 1/2 acre or larger vegetation class	5
D	D 1.4 Characteristics of seasonal ponding or inundation: This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 yrs. Area seasonally ponded is > 1/2 total area of wetland. Points = 2 Area seasonally ponded is < 1/2 total area of wetland. Points = 0 Map of hydrology	Figure 4
D	Total for D 1 Add the points in the boxes above	12
D	D 2. Does the wetland unit have the opportunity to improve water quality? Answer YES if you know or believe there are pollutants in ground water or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downstream from the wetland. Base which of the following conditions presents the sources of pollutants. A unit may have pollutants coming from several sources, but only single source should qualify as opportunity. -- Leaching in the wetland or within 150 ft -- Unprotected groundwater discharge to wetland -- Third holds or outfalls within 150 ft of wetland -- A stream or culvert discharges into wetland that drains developed areas, residential areas, buried fields, roads, or other out-leads -- Residential, urban areas, golf courses are within 150 ft of wetland -- Wetland is fed by groundwater high in phosphates or nitrates -- Other _____ YES multiplier is 2 NO multiplier is 1	multiplier 2
D	TOTAL - Water Quality Functions Multiply the score from D1 by D2 Add score to table on p. 1	24

Wetland name or number _____

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS - Indicators that the wetland unit functions to reduce flooding and stream degradation		Points (see p. 40)
D	D 3. Does the wetland unit have the potential to reduce flooding and erosion? D 3.1 Characteristics of surface water flows out of the wetland unit that is a depression with no surface water leaving it (no outlet). Unit has an intermittent flow, OR highly conditioned permanently flowing outlet. Points = 2 Unit is a "flat" depression (Q, 7 on key) or in the flats class, with permanent surface water and no obvious natural outlet and/or outlet is a man-made ditch. Points = 1 <i>(If ditch is not permanently flowing area unit is "intermittently flowing")</i> Unit has an unintermittent, or slightly conditioned, surface outlet. Points = 0	4
D	D 3.2 Depth of storage during wet periods Estimate the height of ponding above the bottom of the outlet. Few units with no outlet measure from the surface of permanent water or deepest part of ditch. Starts of ponding are 3 ft or more above the surface or bottom of outlet. Points = 7 This wetland is a "headwater" wetland. Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet. Points = 5 Marks are at least 4.5 ft to < 2 ft from surface or bottom of outlet. Points = 3 Unit is flat (yes to Q, 2 or Q, 7 on key) but has small depressions on the surface that trap water. Points = 1 Marks of ponding less than 0.5 ft. Points = 0	3
D	D 3.3 Contribution of wetland unit to storage in the watershed Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of unit. Points = 5 The area of the basin is 10 to 100 times the area of the unit. Points = 3 The area of the basin is more than 100 times the area of the unit. Points = 0 Entire unit is in the PLATS class	3
D	Total for D 3 Add the points in the boxes above	10
D	D 4. Does the wetland unit have the opportunity to reduce flooding and erosion? Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or excessive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where dampling groundwater flooding does not occur. Note which of the following indicators of opportunity apply: -- Wetland is in a headwater of a river or stream that has flooding problems -- Wetland drains to a river or stream that has flooding problems -- Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems -- Other _____ YES multiplier is 2 NO multiplier is 1	multiplier 2
D	TOTAL - Hydrologic Functions Multiply the score from D 3 by D 4 Add score to table on p. 1	20

Total for page 3

H 1.1.4. Interspersion of habitats, (see p. 74)
Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1.1) on the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.

None = 0 points Low = 1 point Moderate = 2 points High = 3 points

NOTE: If you have four or more classes or three vegetation classes and open water the rating is always "high". Use map of Cowardin vegetation classes

H 1.5. Special Habitat Features (see p. 77)
Check the habitat features that are present in the wetland. The number of circles in the number of points you put into the next column.

1 - large, downed, woody debris within the wetland (>4 in. diameter and 6 ft long).
2 - Standing snags (diameter at the bottom > 4 inches) in the wetland
3 - Deeper banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 2.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)

Stable steep banks of fine material that might be used by beaver or muskrat for denning
(>10 degree slope) OR signs of recent beaver activity are present (cut channels or trees that have not yet turned grey/brown)

At least 1/4 acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying fly amphibiids)

Invasive plants cover less than 25% of the wetland area in each section of plants

NOTE: The 20% threshold in early printings of the manual on page 78 is an error.

H 1. TOTAL Score - potential for providing habitat
Add the scores from H 1.1, H 1.2, H 1.3, H 1.4, H 1.5

Wetland name or number

H 2. Does the wetland unit have the opportunity to provide habitat for many species?		Figure
<p>H 2.1 Buffers (see p. 89) Choose the description that best represents condition of buffer of wetland unit. The highest scoring condition that applies to the wetland is to be used in the rating. See text for definition of "undisturbed."</p> <ul style="list-style-type: none">100 m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No structures are within the undisturbed part of buffer. (relatively undisturbed also means no-grazing, no landscaping, no daily human use). Points = 5100 m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. Points = 450 m (165 ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% circumference. Points = 450 m (165 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference. Points = 3100 m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water for > 50% circumference. Points = 3 <p>If buffer does not meet any of the criteria above</p> <ul style="list-style-type: none">No paved areas (except paved trails) or buildings within 25 m (80 ft) of wetland > 95% circumference. Light to moderate grazing, or lawns are OK. Points = 2No paved areas or buildings within 50 m of wetland for > 50% circumference. Points = 2Light to moderate grazing, or lawns are OK. Points = 1Heavy grazing in buffer. Points = 1Vegetated buffers are < 2 m wide (6.6 ft) for more than 95% of the circumference (e.g. p. filled fields, parking, baseball backstop extend to edge of wetland). Points = 0.Buffer does not meet any of the criteria above. Points = 1 <p>Aerial photo glosses buffers</p>		2
<p>H 2.2 Connectivity and Contiguity (see p. 81) H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (ignore riparian corridors, nearby used/gravel roads, paved roads, non-considered bridges in the corridor). YES = 4 points (see p. 81) NO = go to H 2.2.2</p> <p>H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50 ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? OR a Lake-Fringe wetland, if it does not have an undisturbed corridor as in the question above. YES = 2 points (go to H 2.3) NO = H 2.2.3</p> <p>H 2.2.3 Is the wetland: within 5 mi (8 km) of a brackish or salt water estuary OR within 3 mi of a large field or pasture (> 40 acres) OR within 1 mi of a lake greater than 30 acres? YES = 1 point NO = 0 points</p>		2

Total for page

Wetland name or number

<p>H 2.3 Neighboring or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report <i>Identifying and Managing Wetlands</i>) Which of the following priority habitats are within 300 ft (100 m) of the wetland unit? NOTE: For connections, do not have to be relatively undisturbed.</p> <ul style="list-style-type: none">Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre)Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report p. 152).Herbaceous Bogs: Variable size patches of grass and forbs on shallow soils over bedrock.Old-growth/Mature Forests (Old-growth west of Cascade crest) Stands of at least 2 to 6 species, forming a multi-layered canopy with occasional small openings; with at least 20 trunks (8 trunks) > 81 cm (31 in) dbh or > 200 years of age. (Old-growth forest) Stands with average diameters exceeding 53 cm (21 in) dbh, crown cover must be less than 100%; crown cover may be less than 100% decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth 80 - 200 years old west of the Cascade crest.Oregon white Oak: Woodland stands of pure oak or oak-conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 153).Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.Wetland Prairie: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161).Instream: The combination of physical, biological and chemical processes and conditions that increase the functional life history requirements for instream fish and wildlife resources.Nearshore: Relatively undisturbed near-shore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report pp. 162-169 and glossary in Appendix A).Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.Talus: Homogeneous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft) composed of basalt, andesite, and/or sedimentary rock, including riprap slides and rubble talings. May be associated with cliffs.Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long. <p>If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habitats = 3 points If wetland has 1 priority habitat = 1 point No habitats = 0 points</p> <p>Note: All vegetated wetlands are by definition a priority habitat but are not included on this list. Non-vegetated wetlands are addressed in section H 2.3.</p>	1
---	---

Wetland name or number _____

<p>H 1.4 Wetland Landmarks - choose the one description of the landscape around the wetland that best fits (see p. 8.0)</p> <p>There are at least 3 other wetlands within 1/2 mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be barbed by paved roads, fill, fields, or other development).</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within 1/2 mile</p> <p>There are at least 3 other wetlands within 1/2 mile, BUT the connections between them are disturbed</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within 1/2 mile</p> <p>There is at least 1 wetland within 1/2 mile.</p> <p>There are no wetlands within 1/2 mile.</p>	<p>points = 5</p> <p>points = 5</p> <p>points = 3</p> <p>points = 2</p> <p>points = 0</p>
<p>H 2. TOTAL Score - opportunity for providing habitat</p> <p>Add the scores from H 1.1, H 1.2, H 1.3, H 1.4</p> <p>TOTAL for H 1 from page 14</p>	<p>8</p> <p>13</p> <p>21</p>
<p>Total Score for Habitat Functions - add the points for H 1, H 2 and record the result on p. 1</p>	<p>31</p>

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate answers and Category.

<p>Wetland Type</p> <p>Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.</p> <p>SC 1.0 Estuarine wetlands (see p. 8.6)</p> <p>Does the wetland unit meet the following criteria for Estuarine wetlands?</p> <p>— The dominant water regime is tidal.</p> <p>— Vegetated, and</p> <p>— With a salinity greater than 0.5 ppt.</p> <p>YES = Go to SC 1.1</p> <p>NO</p>	<p>Category:</p>
<p>SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-010?</p> <p>YES = Category I</p> <p>NO go to SC 1.2</p>	<p>Cat. I</p>
<p>SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? YES = Category I NO = Category II</p> <p>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native <i>Spartina</i> spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II). The area of <i>Spartina</i> would be rated a Category II while the relatively undisturbed upper marsh with native species would be a Category I. Do not, however, exclude the area of <i>Spartina</i> in determining the size threshold of 1 acre.</p> <p>— At least 2% of the landward edge of the wetland has a 100 ft buffer of shrubs, forest, or un-grazed or un-mowed grassland.</p> <p>— The wetland has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</p>	<p>Cat. I</p> <p>Cat. II</p> <p>Dual rating I/II</p>

Wetland name or number: _____

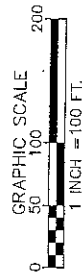
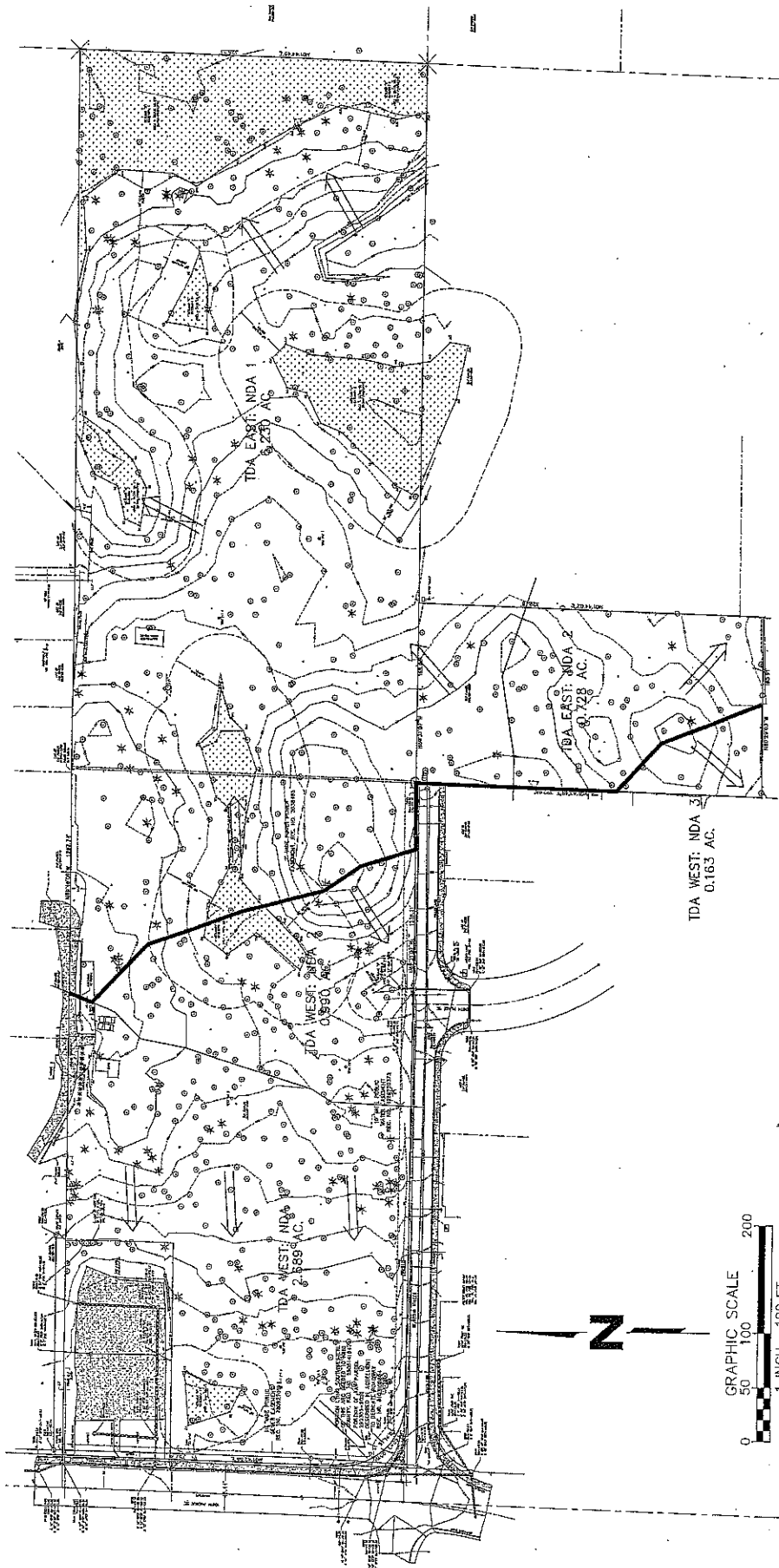
<p>SC 2.0 Natural Heritage Wetlands (see p. 87) Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality, undisturbed wetlands or wetlands that support state threatened, endangered, or sensitive plant species.</p> <p>SC 2.1 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? (This question is used to screen out most sites before you need to contact WNP/DNR.) S.T.R. information from Appendix D _____ or accessed from WNP/DNR web site _____</p> <p>YES _____ NO _____</p> <p>YES - contact WNP/DNR (see p. 70) and go to SC 2.2 or as a site with state threatened or endangered plant species?</p> <p>YES = Category I NO = not a Heritage Wetland</p>	<p>Cat. I</p>
<p>SC 3.0 Bogs (see p. 87) Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below to identify if the wetland is a bog. If you answer yes you will still need to rate the wetland based on its functions.</p> <p>1. Does the unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 12 inches of the soil profile? (See Appendix B for a field key to identify organic soils.) Yes - go to Q 3 No - go to Q 2</p> <p>2. Does the unit have organic soils, either peats or mucks that are less than 16 inches deep over bedrock, or an impermeable horizon such as clay or volcanic ash, or that are floating on a lake or pond?</p> <p>Yes - go to Q 3 No - Is not a bog for purpose of rating</p> <p>3. Does the unit have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists of species in Table 3)?</p> <p>Yes - Is a bog for purpose of rating No - go to Q 4</p> <p>NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog.</p> <p>1. Is the unit forested (> 30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann's spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (> 30% coverage of the total shrub/herbaceous cover)?</p> <p>2. YES = Category I No = Is not a bog for purpose of rating</p>	<p>Cat. I</p>

Wetland name or number: _____

<p>SC 4.0 Forested Wetlands (see p. 90) Does the wetland unit have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? If your answer is a you will still need to rate the wetland based on its functions.</p> <p>Old-growth forests: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings, with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 37 inches (81 cm) or more.</p> <p>NOTE: The criterion for dbh is based on measurements for upland forests. Two-hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.</p> <p>Mature forests: (west of the Cascade Crest) Stands where the largest trees are 80 - 200 years old OR have average diameters (dbh) exceeding 21 inches (Stem), crown cover may be less than 100% decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth.</p> <p>YES = Category I NO = not a forested wetland with special characteristics</p>	<p>Cat. I</p>
<p>SC 5.0 Wetlands in Coastal Lagoons (see p. 91) Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <p>The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</p> <p>The lagoon in which the wetland is located contains surface water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)</p> <p>YES = Go to SC 5.1 NO = not a wetland in a coastal lagoon</p> <p>SC 5.1 Does the wetland meet all of the following three conditions?</p> <p>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grading), and has less than 20% cover of invasive plant species (see list of invasive species on p. 74).</p> <p>At least 1/2 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</p> <p>The wetland is larger than 1/10 acre (4356 square feet)</p> <p>YES = Category I NO = Category II</p>	<p>Cat. I</p> <p>Cat. II</p>

Wetland name or number _____

<p>SC 6.0 Interdunal Wetlands (see p. 93)</p> <p>Is the wetland unit west of the 1889 line (also called the Western Boundary of Upland Watershed or WBOW)?</p> <p>YES - go to SC 6.1 NO - not an interdunal wetland for rating</p> <p><i>If you answer yes you will still need to rate the wetland based on its functions.</i></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> Long Beach Peninsula- lands west of SR 103 Grayland-Westport- lands west of SR 105 Ocean Shores-Copalis- lands west of SR 115 and SR 109 <p>SC 6.1 Is the wetland one acre or larger, or is it in a mosaic of wetlands that is one acre or larger?</p> <p>YES = Category II NO = go to SC 6.2</p> <p>SC 6.2 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre?</p> <p>YES = Category III</p>	<p>Cat. II</p> <p>Cat. III</p>
<p>Category of wetland based on Special Characteristics</p> <p>Choose the "highest" rating if wetland falls into several categories and record on p. 1</p> <p>If you answered NO for all types enter "Not Applicable" on p. 1</p>	<p>NA</p>



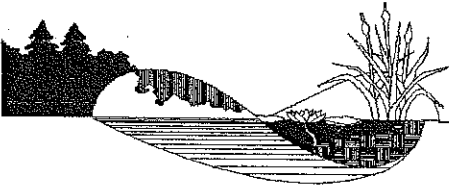
FIELDBROOK COMMONS
PRELIMINARY TIR
FIGURE 3: DRAINAGE BASINS, SUBBASINS, AND SITE CHARACTERISTICS

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DESIGNED BY: YLP
PROJECT ENGINEER: MAJ
PROJECT NO.: 11062
SHEET 1 OF 1



Sewall Wetland Consulting, Inc.

**PNW HOLDINGS LLC-FIELDBROOK COMMONS
CITY OF RENTON
CRITICAL AREAS REPORT**

Prepared For:

**PNW Holdings LLC
9725 SE 36th Street
Suite 214
Mercer Island, Washington 98040**

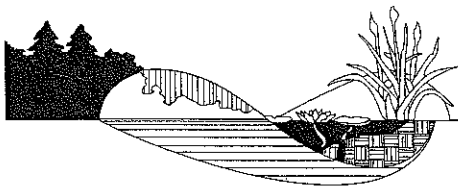
Attn: Justin Lagers

**November 8, 2011
Job#11-121**

**Sewall Wetland Consulting, Inc.
27641 Covington Way SE, #2
Covington, WA 98042**

**Phone: 253-859-0515
Fax: 253-852-4732**

EXHIBIT 19



Sewall Wetland Consulting, Inc.

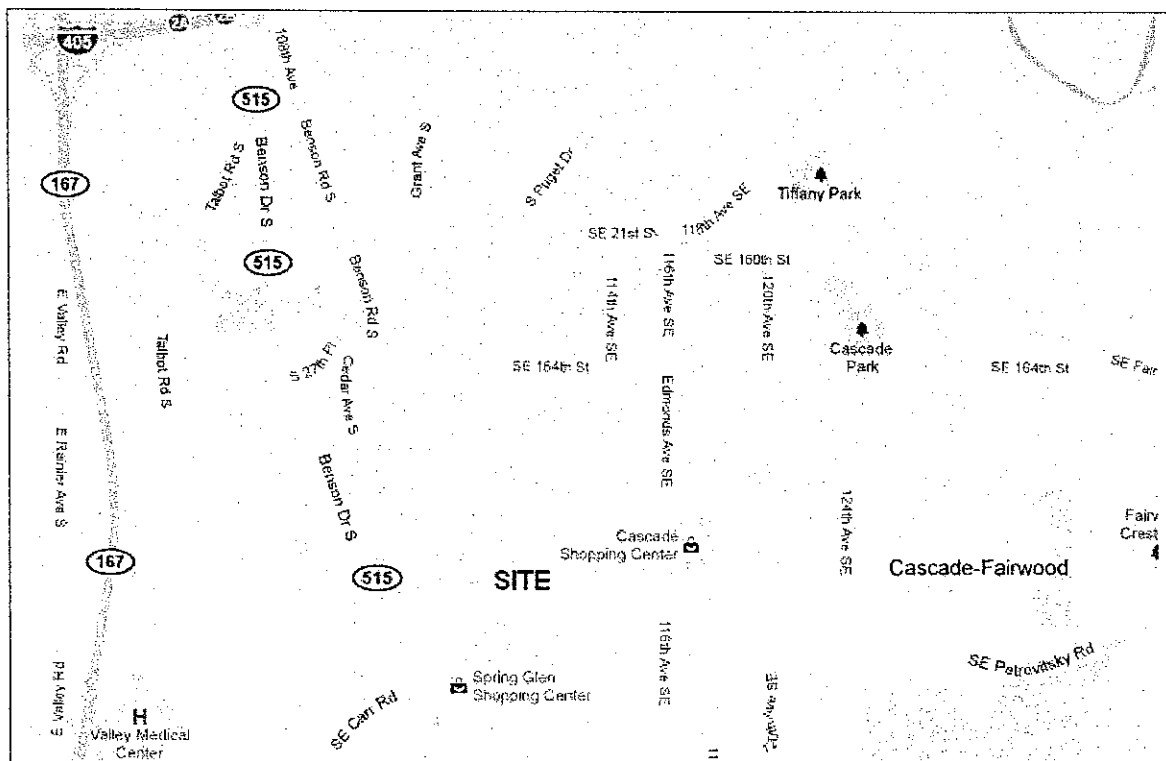
27641 Covington Way SE #2
Covington, WA 98042

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PNW HOLDINGS LLC – FIELDBROOK COMMONS CITY OF RENTON CRITICAL AREAS REPORT

1.0 INTRODUCTION

This report describes jurisdictional wetlands on the 10.7 acre proposed Fieldbrook Commons PUD on the east side of Benson Road South, and north of Cedar Avenue South (SE 172nd Street) in the City of Renton, Washington (the "site"). Specifically, the site consists of three abutting parcels (Parcels# 2923059168, 2923059022, and 29230599023) located in a portion of the SE 1/4 of Section 29, Township 23 North, Range 5 East of the Willamette Meridian in King County, Washington.



Vicinity Map

The site consists of undeveloped deciduous forest with some relic soil disturbance from past coal mining activity. The site is proposed to be developed into 161 unit PUD development with associated roads and infrastructure.

2.0 METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site in March, April and August of 2011. The site was reviewed using methodology described in the *Washington State Wetlands Identification Manual* (WADOE, March 1997). This is the methodology currently recognized by the City of Renton and the State of Washington for wetland determinations and delineations. The site was also inspected using the methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement (Version 2.0)* dated June 24, 2010, as required by the US Army Corps of Engineers. Soil colors were identified using the 1990 Edited and Revised Edition of the *Munsell Soil Color Charts* (Kollmorgen Instruments Corp. 1990).

The *Washington State Wetlands Identification and Delineation Manual* and the *Corps of Engineers Wetlands Delineation Manual/Regional Supplement* all require the use of the three-parameter approach in identifying and delineating wetlands. A wetland should support a predominance of hydrophytic vegetation, have hydric soils and display wetland hydrology. To be considered hydrophytic vegetation, over 50% of the dominant species in an area must have an indicator status of facultative (FAC), facultative wetland (FACW), or obligate wetland (OBL), according to the National List of Plant Species That Occur in Wetlands: Northwest (Region 9) (Reed, 1988). A hydric soil is "a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part". Anaerobic conditions are indicated in the field by soils with low chromas (2 or less), as determined by using the Munsell Soil Color Charts; iron oxide mottles; hydrogen sulfide odor and other indicators. Generally, wetland hydrology is defined by inundation or saturation to the surface for a consecutive period of 12.5% or greater of the growing season. Areas that contain indicators of wetland hydrology between 5%-12.5% of the growing season may or may not be wetlands depending upon other indicators. Field indicators include visual observation of soil inundation, saturation, oxidized rhizospheres, water marks on trees or other fixed objects, drift lines, etc. Under normal circumstances, indicators of all three parameters will be present in wetland areas.

Following delineation of the wetlands on the site, the flags were surveyed by Concept Engineering, Inc. (see attached survey).

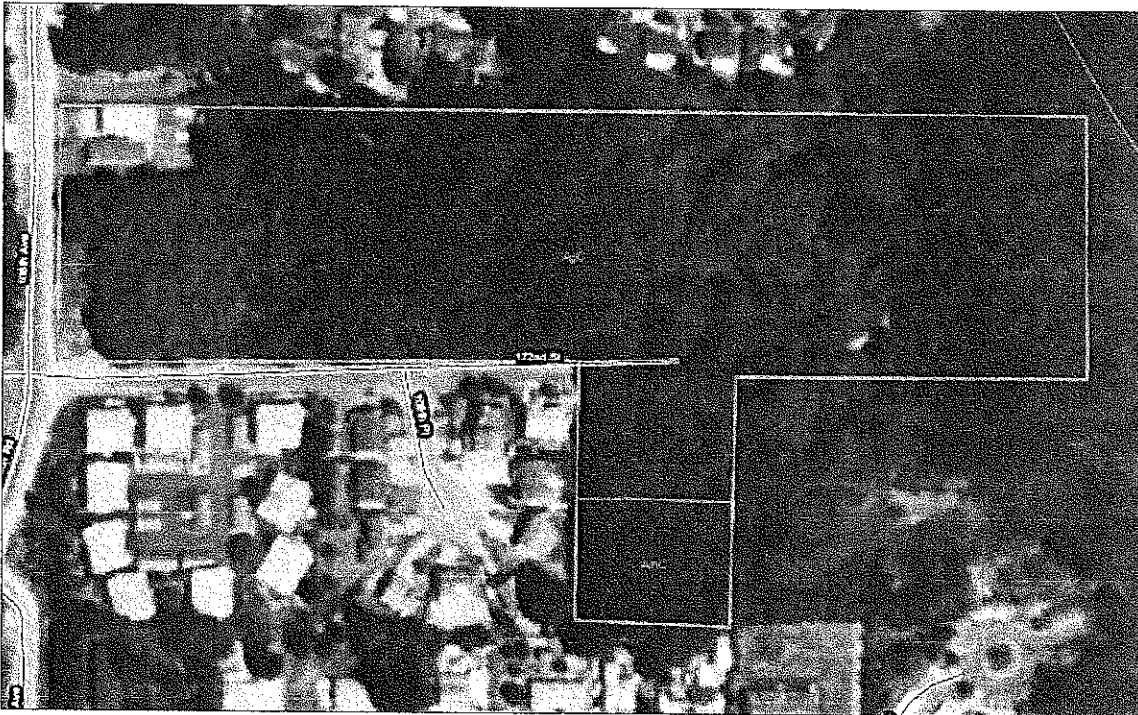
3.0 OBSERVATIONS

3.1 *Existing Site Documentation*

Prior to visiting the site a review of several natural resource inventory maps was conducted. Resources reviewed included the King County Soils Survey, King County iMap website with sensitive areas layers activated, the National Wetlands Inventory, the City of Renton's Water Class map, the City of Renton's wetland Inventory map, and the Washington Department of Fish and Wildlife Priority Habitats on-line mapping system.

3.1.1 *Soil Survey*

According to the Soil Survey, King County Area, Washington (Snyder et al 1973), the site is mapped as containing Alderwood gravelly loam soils (AgC) and Arents, Alderwood material (AmC). Alderwood soils are moderately-well drained soils formed in glacial till under conifers. Alderwood soils are not listed as a "hydric" soil according to the publication *Hydric Soils of the United States* (USDA NTCHS Pub No.1491, 1991). However, Alderwood soils can contain small inclusions of poorly drained hydric soils such as Norma, Bellingham, Seattle, Tukwila and Shalcar soil series.



Soil Map of the site

3.1.2 *National Wetlands Inventory*

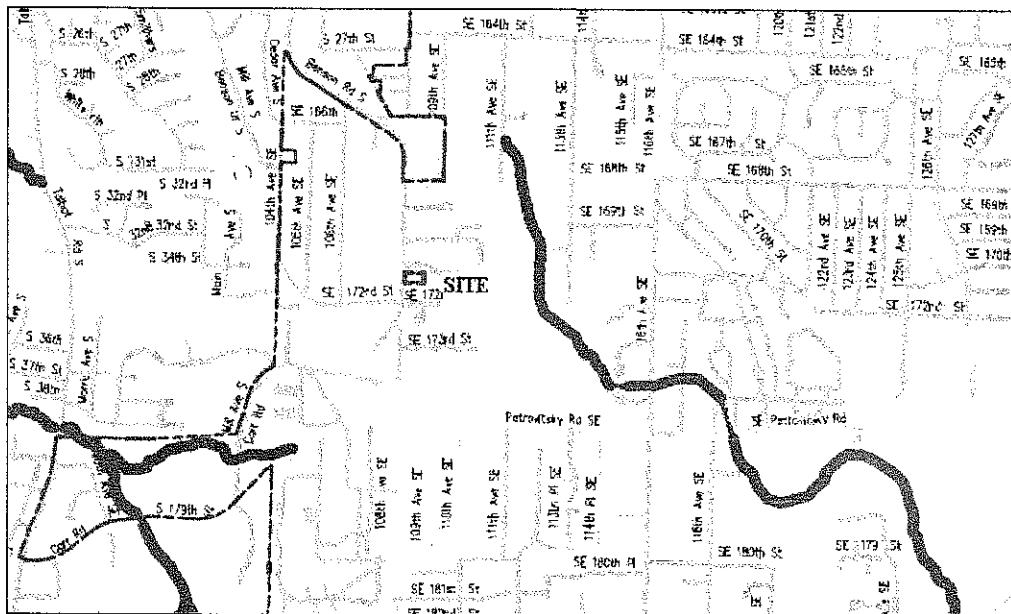
According to the National Wetlands Inventory there is a portion of a forested and scrub shrub wetland located along the east side of the site.



National Wetlands Inventory map

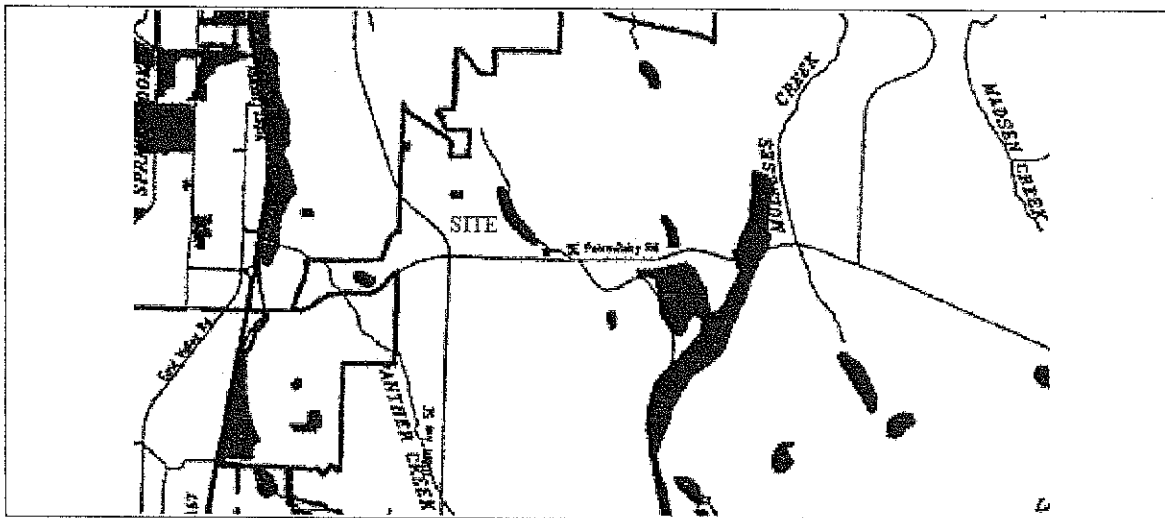
3.1.4 City of Renton Water Class Map

According to the City of Renton Draft Water Class Map, there are no streams on the site. There is a Class 4 stream off-site to the east several hundred feet.



Above: City of Renton's Water Type Map

3.1.5 City of Renton's Wetlands Map



Above: City of Renton's Wetland Inventory Map.

According to the City of Renton's Wetland Inventory Map, there is a wetland located to the east of the site. The scale of the map and lack of most streets make the actual distance from the site impossible to determine.

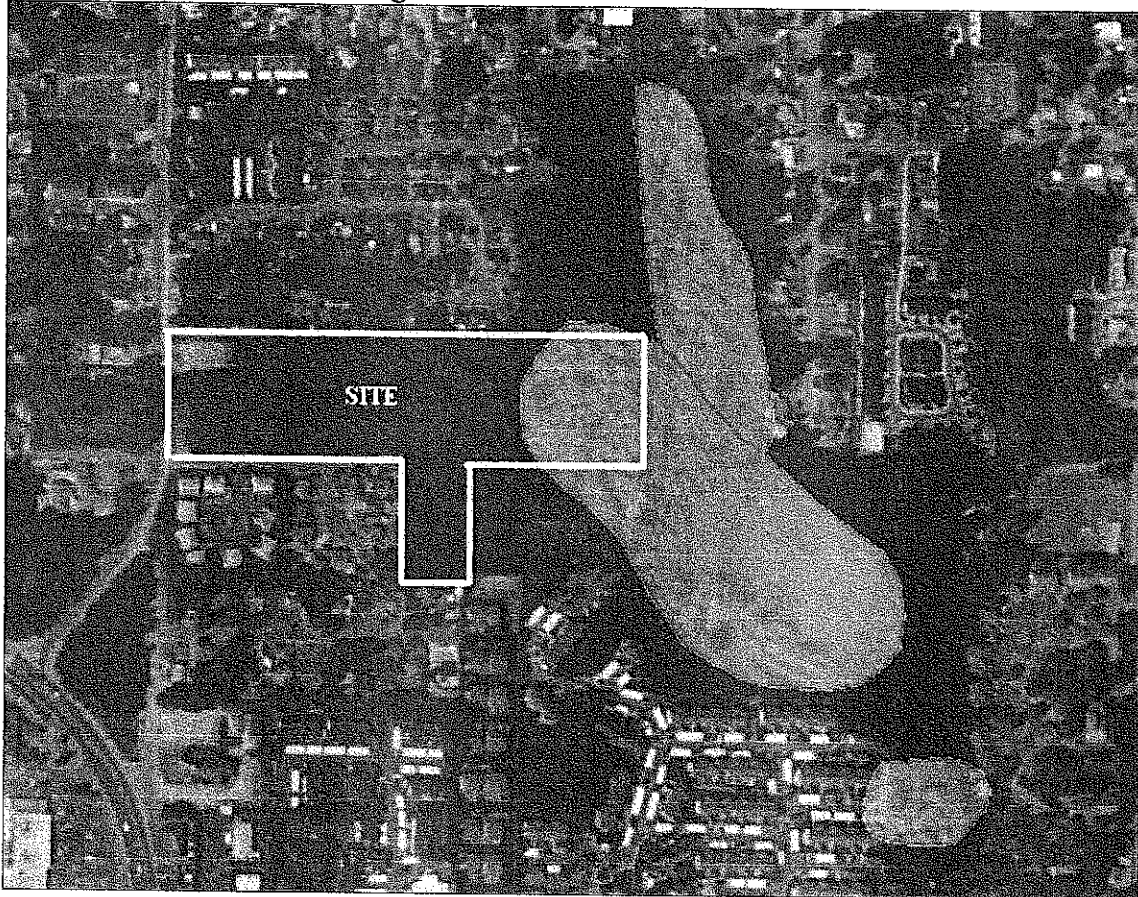
3.1.5 King County iMap Website

The King County iMap website with wetland and stream layers activated portrays a wetland located along the east side of the site.



3.1.6 WDFW Priority Habitat Website Map

According to the WDFW Priority Habitat Website with Public access layers activated, there is a wetland located along the east side of the site.



3.2 Field Observations

3.2.1 Uplands

The center of the site is the topographic high point of the site, sloping off from here to the east and west. The site although forested, has evidence of significant past surface disturbance. The northwest corner of the site contains an old paved area that previously contained a King County Fire Department building. The eastern side of the site has had significant past disturbance from historic coal mining activities. Topographic undulations and mounds are old coal tailings and a portion of a road. Review of the 1936 aerial photograph of the site revealed a small gravel road crossing the east side of the site

as well as open barren ground with a grid-like appearance to the southeast. This is the location of an historic coal mine.

The upland portion of the site is vegetated with a mix of red alder, big leaf maple, bitter cherry and douglas fir. Understory species include Indian plum, hazelnut, salmonberry, Himalayan blackberry, sword fern, vine maple and creeping blackberry.

3.2.2 Wetlands

A total of six (6) wetlands were delineated on the site. Several of these have evidence that they may have been fully (Wetlands E & F) or partially (Wetland A) created by past human disturbance, probably related to coal mining activities and or work associated with them.

Wetland A

Wetland A was delineated with pink flags labeled A1-A19 and is located within a closed depression just north of a large historic coal tailing pile. The shape and contours of the wetland suggest it was at least partially created by excavation, or compaction of a mix of tailings and natural soil. This wetland is a depressional wetland that has standing water within its center throughout the winter and spring and goes completely dry in August-October. Trash and old metal debris were observed within the wetland. The wetland is primarily scrub shrub and emergent in character, although a small forested perimeter is found along the edge of the wetland.

Species observed include red alder (*Alnus rubra*), vine maple (*Acer circinatum*), red-osier dogwood (*Cornus stolonifera*), salmonberry (*Rubus spectabilis*), slough sedge (*Carex obnupta*) and creeping buttercup (*Ranunculus repens*).

Soil pits excavated within the wetland edge revealed 4" A horizon or organic laden gravelly loam with a color of 10YR 2/1. From 4"-16" in depth, a gravelly loam with common, medium, distinct, redoximorphic concentrations was observed with a color of 10YR 3/2. Soils were saturated on the edge of the wetland in March and included standing water in the center of the wetland. By late April the water had been reduced in the wetland to a small pool in the center, and in July and August the wetland was observed to be completely dry.

Wetland A contains areas that would be classified as PFO1E (palustrine, forested, broad leaved deciduous, persistent, saturated), PSS1E (palustrine, scrub-shrub, persistent, saturated), and PEM2C (palustrine, emergent, non persistent, seasonally flooded) according to the US Fish and Wildlife Wetland Classification methodology (Cowardin et al. 1979).

According to the criteria in City of Renton Municipal Code (RMC) Chapter 4-3-050.M.1, and despite the past apparent disturbance, Wetland A appears to best be classified as Category 2 wetland. Category 2 wetlands are defined in the Code as follows;

ii. Category 2: Category 2 wetlands are wetlands which meet one or more of the following criteria:

- (a) Wetlands that are not Category 1 or 3 wetlands; and/or*
- (b) Wetlands that have heron rookeries or osprey nests, but are not Category 1 wetlands; and/or*
- (c) Wetlands of any size located at the headwaters of a watercourse, i.e., a wetland with a perennial or seasonal outflow channel, but with no defined influent channel, but are not Category 1 wetlands; and/or*
- (d) Wetlands having minimum existing evidence of human-related physical alteration such as diking, ditching or channelization; and/or*

Typically, Category 2 wetlands have a 50' buffer measured from the wetland edge.

Wetland B

Wetland B (flags B1-B22- 10,300sf on-site) consists of the western edge of a relatively large (@4-5 acres) located primarily off-site to the east. This wetland is known as a headwater wetland to Soos Creek, which forms further to the east of the site several hundred feet. This wetland is primarily forested although also contains a scrub-shrub component and a small portion (10%-20%) of seasonally standing water to the southeast of the site. Investigation into this wetland to a distance of 100' east of the eastern site boundary revealed no stream channel.

The portion of this wetland found along the east side of the site consists of an area that has been historically disturbed from past mining activity, and evidence of grading and roads along the edge and to the north of the site are present. The majority of the wetland on-site is dominated by red alder, pacific willow (*Salix lasiandra*) and to the east, a few scattered western red cedars (*Thuja plicata*). The understory is sparse in some areas but generally consists of salmonberry, red osier dogwood, Himalayan blackberry, hardhack (*Spirea douglasii*), slough sedge, lady fern (*Athyrium filix-femina*) and skunk cabbage (*Lysichitum americanum*).

Soil pits excavated in this wetland revealed a dark (10YR 3/2) gravelly loam with faint redoximorphic concentrations. Soils were saturated at a depth of -12" during our April delineation of this wetland.

Wetland B would be classified as PFO1E (palustrine, forested, broad leaved deciduous, persistent, saturated) and PSS1E (palustrine, scrub-shrub, persistent, saturated) according to the US Fish and Wildlife Wetland Classification methodology (Cowardin et al. 1979).

According to the criteria in City of Renton Municipal Code (RMC) Chapter 4-3-050.M.1, due to its headwater location, size < 10 acres, lack of any unique plant associations or listed species, Wetland B appears to best be classified as Category 2 wetland. Category 2 wetlands are defined in the Code as follows;

ii. Category 2: Category 2 wetlands are wetlands which meet one or more of the following criteria:

- (a) Wetlands that are not Category 1 or 3 wetlands; and/or*
- (b) Wetlands that have heron rookeries or osprey nests, but are not Category 1 wetlands; and/or*
- (c) Wetlands of any size located at the headwaters of a watercourse, i.e., a wetland with a perennial or seasonal outflow channel, but with no defined influent channel, but are not Category 1 wetlands; and/or*
- (d) Wetlands having minimum existing evidence of human-related physical alteration such as diking, ditching or channelization; and/or*

Typically, Category 2 wetlands have a 50' buffer measured from the wetland edge.

Wetland C

Wetland C is a small (1,449sf), isolated scrub shrub digressional wetland that was flagged with flags C1-C6 on the east end of the site.

This wetland is a shallow depression vegetated with a mix of vine maple, Oregon ash (*Fraxinus latifolia*) saplings, red-osier dogwood and slough sedge.

Soil pits excavated within this wetland revealed black (10YR 2/1) mucky loam soils that contained 4" of standing water within its center in the early growing season.

Wetland C would be classified as PSS1C (palustrine, scrub-shrub, persistent, seasonally flooded) according to the US Fish and Wildlife Wetland Classification methodology (Cowardin et al. 1979).

According to the criteria in City of Renton Municipal Code (RMC) Chapter 4-3-050.M.1, Wetland C would be best classified as Category 3 wetland. Category 3 wetlands are defined in Code as follows;

iii. Category 3: Category 3 wetlands are wetlands which meet one or more of the following criteria:

- (a) Wetlands that are severely disturbed. Severely disturbed wetlands are wetlands which meet the following criteria:*
 - (1) Are characterized by hydrologic isolation, human-related hydrologic alterations such as diking, ditching, channelization and/or outlet modification; and*

- (2) Have soils alterations such as the presence of fill, soil removal and/or compaction of soils; and*
- (3) May have altered vegetation.*
- (b) Wetlands that are newly emerging. Newly emerging wetlands are:*
 - (1) Wetlands occurring on top of fill materials; and*
 - (2) Characterized by emergent vegetation, low plant species richness and used minimally by wildlife. These wetlands are generally found in the areas such as the Green River Valley and Black River Drainage Basin.*
- (c) All other wetlands not classified as Category 1 or 2 such as smaller, high quality wetlands.*

Typically, Category 3 wetlands have a 25' buffer measured from the wetland edge.

Wetland D

Wetland D is an isolated, 7,671sf forested wetland that was flagged with flags D1-D22 near the center of the site.

This wetland is vegetated with an overstory of red alder and Oregon ash, with an understory of vine maple, red-osier dogwood and slough sedge.

Soil pits excavated within this wetland revealed black (10YR 2/1) mucky loam soils that contained 4"-12" of standing water within its center in the early growing season.

Wetland D would be classified as PFO1E (palustrine, forested, broad leaved deciduous, persistent, saturated) according to the US Fish and Wildlife Wetland Classification methodology (Cowardin et al. 1979).

According to the criteria in City of Renton Municipal Code (RMC) Chapter 4-3-050.M.1, due to relatively undisturbed character, and its lack of any unique plant associations or listed species, Wetland D appears to best be classified as Category 2 wetland. Category 2 wetlands are defined in the Code as follows;

ii. Category 2: Category 2 wetlands are wetlands which meet one or more of the following criteria:

- (a) Wetlands that are not Category 1 or 3 wetlands; and/or*
- (b) Wetlands that have heron rookeries or osprey nests, but are not Category 1 wetlands; and/or*
- (c) Wetlands of any size located at the headwaters of a watercourse, i.e., a wetland with a perennial or seasonal outflow channel, but with no defined influent channel, but are not Category 1 wetlands; and/or*
- (d) Wetlands having minimum existing evidence of human-related physical alteration such as diking, ditching or channelization; and/or*

Typically, Category 2 wetlands have a 50' buffer measured from the wetland edge.

Wetland E

Wetland E is a very small (68sf) scrub-shrub wetland that appears to have been formed by the past road constructional SE 172nd Street. The wetland contains several red-soier dogwood shrubs as well as Himalayan blackberry. A small culvert leads from this wetland into the street drain system.

Soil pits excavated within this wetland revealed black (10YR 2/1) gravelly loam soils that was saturated at the surface in the early growing season.

Wetland E would be classified as PSS1C (palustrine, scrub-shrub, persistent, seasonally flooded) according to the US Fish and Wildlife Wetland Classification methodology (Cowardin et al. 1979).

According to the criteria in City of Renton Municipal Code (RMC) Chapter 4-3-050.M.1, Wetland ER would be best classified as Category 3 wetland. Category 3 wetlands are defined in Code as follows;

iii. Category 3: Category 3 wetlands are wetlands which meet one or more of the following criteria:

(a) Wetlands that are severely disturbed. Severely disturbed wetlands are wetlands which meet the following criteria:

(1) Are characterized by hydrologic isolation, human-related hydrologic alterations such as diking, ditching, channelization and/or outlet modification; and

(2) Have soils alterations such as the presence of fill, soil removal and/or compaction of soils; and

(3) May have altered vegetation.

(b) Wetlands that are newly emerging. Newly emerging wetlands are:

(1) Wetlands occurring on top of fill materials; and

(2) Characterized by emergent vegetation, low plant species richness and used minimally by wildlife. These wetlands are generally found in the areas such as the Green River Valley and Black River Drainage Basin.

(c) All other wetlands not classified as Category 1 or 2 such as smaller, high quality wetlands.

Typically, Category 3 wetlands have a 25' buffer measured from the wetland edge.

Wetland F

Wetland F appears to have formed in a historically disturbed area along the northwest corner of the site. This wetland was flagged with flags F1-F5 and is 1,591sf in size.

Soils are very disturbed with old tire ruts and ditching. This area abuts the old Fire Station site to the north.

Vegetation found within this wetland consists primarily of hardhack, reed canary grass (*Phalaris arundinacea*), some red osier dogwood and himalayan blackberry. A few of black cottonwood (*Populus balsamifera*) and Oregon ash are found along the boundary but not enough to consider this a forested wetland.

Soil pits excavated within this wetland revealed mottled, dark (10YR 2/2) gravelly loam soils that was saturated within 12" of the surface in the early growing season.

Wetland F would be classified as PSS1C (palustrine, scrub-shrub, broad leaved deciduous, seasonally flooded) according to the US Fish and Wildlife Wetland Classification methodology (Cowardin et al. 1979).

According to the criteria in City of Renton Municipal Code (RMC) Chapter 4-3-050.M.1, Wetland F would be best classified as Category 3 wetland. Category 3 wetlands are defined in Code as follows;

iii. Category 3: Category 3 wetlands are wetlands which meet one or more of the following criteria:

(a) Wetlands that are severely disturbed. Severely disturbed wetlands are wetlands which meet the following criteria:

(1) Are characterized by hydrologic isolation, human-related hydrologic alterations such as diking, ditching, channelization and/or outlet modification; and

(2) Have soils alterations such as the presence of fill, soil removal and/or compaction of soils; and

(3) May have altered vegetation.

(b) Wetlands that are newly emerging. Newly emerging wetlands are:

(1) Wetlands occurring on top of fill materials; and

(2) Characterized by emergent vegetation, low plant species richness and used minimally by wildlife. These wetlands are generally found in the areas such as the Green River Valley and Black River Drainage Basin.

(c) All other wetlands not classified as Category 1 or 2 such as smaller, high quality wetlands.

Typically, Category 3 wetlands have a 25' buffer measured from the wetland edge.

4.0 FUNCTIONS AND VALUES

Wetlands A has a moderate function for water quality, hydrologic function and wildlife habitat. The small size, past disturbance from mining, and close distance to disturbance reduce these functions somewhat.

Wetland B has a higher functional value as this is a multiclass wetland located at the headwater of Soos Creek. This wetland stores and attenuates flood waters as well as removes water contaminants from the water column, which would otherwise pass downstream into Soos Creek a salmon bearing water. Wildlife habitat is relatively high in this wetland as a result of the complexity of the vegetation, hydrologic regimes and relatively intact buffers. What does reduce the habitat of this wetland and all of the wetland on-site is the isolation of this area within a relatively urban landscape. The wetland and surrounding upland is totally isolated by residential homes as well as paved City streets.

Wetlands C and D have low to moderate function which is primarily due to their isolated location in the landscape, lack of vegetation complexity, small size and lack of connection to other habitat areas.

Wetland E and F are of low value as they are very small, are highly disturbed and have been altered by past uses.

5.0 REGULATIONS

In addition to the wetland regulations previously described for wetlands and streams, certain activities (filling and dredging) within "waters of the United States" may fall under the jurisdiction of the US Army Corps of Engineers (ACOE). The ACOE regulates all discharges into "waters of the United States" (wetlands) under Section 404(b) of the Clean Water Act.

Due to the increasing emphasis on Endangered Species Act compliance for all fills of Waters of the United State and Waters of the State, both the Corps of Engineers and Washington Department of Ecology should be contacted regarding permit conditions, compliance, and processing prior to commitment to any fill of wetlands or streams for this project.

6.0 PROPOSED PROJECT

The proposed project is the construction of a 161 PUD project with associated infrastructure. The location of Wetlands D, E and F result in most of the developable property on the site being encumbered by wetland or buffer. Since these wetlands, particularly Wetlands E and F are of low value, and Wetland D is small in size but because of its linear shape impacts the sites usable space so greatly, we are proposing filling these three wetlands.

As a result, it is our intention to fill these wetlands and provide adequate mitigation for their lost functions by creating wetland on the eastern side of the site in and around Wetlands A, B and C. Impacts to wetlands must be justified through a mitigation sequence as detailed in City of Renton Code. This sequencing requires addressing the following criteria;

a. Avoid any disturbances to the wetland or buffer;

The site contains three small wetlands which the developer proposes to fill and mitigate for through the creation of a new wetland area and enhanced buffer areas for the existing wetlands A, B & C in the eastern third of the site. Wetland (F) located on the western side of the site is Category 3 wetland measuring 1595sf. Due to the requirement to provide a secondary fire access directly out to 108th Ave S.E. the developer is unable to avoid direct impact to this wetland. Wetland (E) located in the center of the site and adjacent to S.E. 172nd St. measures 68sf and is rated as a Category 3 wetland. Due to the requirement to dedicate and construct the other half of the S.E. 172nd St. ROW the developer is unable to avoid direct impacts to this wetland. Wetland (D) is located generally in the center of the project and is rated as a Category 2 wetland measuring 7671sf.

b. Minimize any wetland or buffer impacts;

The developer previously attempted to plan roadways and improvements around this wetland, however the location and shape of the wetland impacted the vehicular circulation and building locations to such an extent that the project would not be financially feasible to construct.

c. Restore any wetlands or buffer impacted or lost temporarily; and

Resoration of this wetland in this location would not be feasible due to the location of the impacts and configuration of the parcel and remaining wetland.

d. Compensate for any permanent wetland or buffer impacts by one of the following methods:

- i. Restoring a former wetland and provide buffers at a site once exhibiting wetland characteristics to compensate for wetlands lost;*

This is not applicable to this site as no historic wetlands are located on the property.

ii. *Creating new wetlands and buffers for those lost; and*

A total of 9334sf of wetland will be filled.

As described in Code; *"Any applicant proposing to alter wetlands may propose to restore wetlands or create new wetlands, with priority first for on-site restoration or creation and then second, within the drainage basin, in order to compensate for wetland losses. Restoration activities must include restoring lost hydrologic, water quality and biologic functions".* Additionally, Code states *"Where feasible, created or restored wetlands shall be a higher category than the altered wetland. In no cases shall they be lower"*.

Code Specifies the following mitigation ratios for wetland impacts;

i. RATIOS FOR WETLANDS CREATION OR RESTORATION:		
Wetland Category	Vegetation Type	Creation/Restoration Ratio
Category 1	Forested	6 times the area altered.
	Scrub-shrub	3 times the area altered.
	Emergent	2 times the area altered.
Category 2	Forested	3 times the area altered.
	Scrub-shrub	2 times the area altered.
	Emergent	1.5 times the area altered.
Category 3	Forested	1.5 times the area altered.
	Scrub-shrub	1.5 times the area altered.
	Emergent	1.5 times the area altered.

The following table outlines the wetlands to be filled and the required wetland creation using the City of Renton mitigation ratios:

Wetland	Size	Category	Vegetation Type	Ratio	Required Wetland Creation
D	7671sf	2	Forested	3:1	23013sf
E	68sf	3	scrub-shrub	1.5:1	102sf
F	1595sf	3	scrub-shrub	1.5:1	2393sf
Total Creation					25508sf

Conceptual Mitigation

To compensate for the impact to 9334sf of Category 2 & 3 wetland, we are proposing creating 25,508sf of wetland along the west edge of Wetland B as well as between Wetlands A and C. This results in an overall wetland mitigation ratio of 2.73:1 (*created wetland:impacted wetland*).

This mitigation will create Category 2 wetland for a combination of Category 2 and 3 wetland impacts. As depicted on the attached Conceptual Mitigation Plan, 25,508sf of area will be excavated out to a similar depth to the existing wetland in two areas to intercept the surficial groundwater table and create conditions favorable to create wetland hydrology. A berm will be placed between the two wetland creations due to the differences in elevation of the two areas. This will prevent wetland creation between Wetlands A and C from draining into Wetland B. Hydrologic monitoring will be conducted using peizometers in the proposed mitigation area through the winter and spring to verify groundwater elevations. This area will then be graded back at a slope no steeper than 3:1 (horizontal:vertical). The area will then be planted with a mix of native trees, shrubs and herbaceous species and will also include several habitat features (logs and snags) to increase its habitat function. The goal will be to create at least 25,508sf of area meeting all three wetland criteria (hydric soils, hydrophytic vegetation, and wetland hydrology) as specified in the *Washington State Wetlands Identification Manual* (WADOE, March 1997). All disturbed buffer areas will be restored with a dense planting of native trees and shrubs. The resulting wetland creation area will be monitored for 5 years as required by Code.

If you have any questions regarding this report, please call us at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetlands Ecologist PWS #212

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1.0 CONCEPTUAL MITIGATION PROJECT OVERVIEW

To compensate for the fill of a 9,334sf Category 2 &3 wetland, it is proposed to create 25,508sf of wetland along the west side of Wetland B, a Category 2 wetland as well as between Wetlands A and C.

2.0 MITIGATION CONCEPT AND GOALS

2.1 Mitigation Concept

The mitigation proposal is to enlarge Wetland B as well as connect Wetlands A and C through excavation to create wetland conditions. The wetland creation areas will be densely planted with native vegetation. The use of diverse native plantings are expected to significantly improve the overall function of the wetland and buffer as it will remove dense thickets of exotic blackberry as well as add emergent and shrub plant communities into what is now, a single class forested wetland.

2.2 Mitigation Goals

2.2.1 Create 25,508sf of emergent, scrub shrub and forested wetland.

3.0 CONSTRUCTION SEQUENCE

The construction sequence of this project will be implemented as follows:

- 3.1 Pre-construction meeting
- 3.2 Construction staking
- 3.3 Construction fencing and erosion control
- 3.4 Clearing and grading
- 3.5 Stabilization of mitigation area
- 3.6 Plant material installation
- 3.7 Construction inspection
- 3.8 Agency approval
- 3.9 Monitoring inspection and reporting
- 3.10 Silt fence removal
- 3.11 Project completion

3.1 Pre-construction Meeting

A pre-construction meeting will be held on-site prior to commencement of construction, to include the biologist, the City, and the contractor. The approved plans and specifications will be reviewed to ensure that all parties involved understand the intent of the construction documents, specifications, site environmental constraints, sequences, and inspection requirements.

3.2 Construction Staking

The limits of clearing and grading near the critical areas will be marked in the field by a licensed professional land surveyor prior to commencement of construction activities.

3.3 Construction Fencing & Erosion Control

All erosion control measures adjacent to the critical areas, including silt fencing and orange construction fencing, will be installed. Erosion control fencing will remain around the mitigation area until clearing, grading and hydroseeding are complete in upland areas outside the critical areas.

3.4 Clearing & Grading

Clearing and grading in and near the existing sensitive area will be per the approved Final Mitigation Plans.

3.5 Stabilization of Mitigation Area

All graded areas in the wetland or buffer will be stabilized with native hydroseed mix or mulch upon completion of grading. Orange construction fencing and erosion control fences will be restored (if necessary) and placed around the critical areas.

3.6 Plant Material Installation

All plant material will be planted by hand per detail and Construction and Planting Notes. The Mitigation Plan specifies the required size, species, quantity, and location of plant materials to be installed. The contractor will re-seed or over-seed all hydroseeded areas disturbed during the planting process. Upon completion of the planting, the erosion control fencing will be restored and repaired. Plant substitutions or modifications to locations shall be approved in writing by the Owner's biologist prior to installation.

3.7 Construction Inspection

Upon completion of installation, the County's biologist will conduct an inspection to confirm proper implementation of the Mitigation Plan. Any corrections, substitutions or missing items will be identified in a "punch list" for the landscape contractor. Items of particular importance will be soils in pits, pit size, plant species, plant size, mulch around pits, and tree staking.

Upon completion of planting, if installation or materials vary significantly from the Mitigation Plan, the contractor will submit a reproducible "as-built" drawing to the Owner.

3.8 Agency Approval

Following acceptance of the installation by the City, the County biologist should prepare a letter granting approval of the installation.

3.9 Monitoring

The site will be monitored for 5 years to insure the success of the mitigation project.

3.10 Silt Fence Removal

Erosion control fencing adjacent to the mitigation area will remain in place for at least one year, and/or until all areas adjacent to the mitigation area have been stabilized. The County's Biologist may recommend that the fencing remain in place for a longer duration.

4.0 CONSTRUCTION AND PLANTING NOTES

4.1 Site Preparation & Grading

4.1.1 The Landscape Contractor will approve existing conditions of subgrade prior to initiation of any mitigation installation work.

The Landscape Contractor will inform the Owner of any discrepancies between the approved construction document and existing conditions.

4.1.2 The General Contractor will flag the limits of clearing with orange construction fencing and will observe these limits during construction. No natural features or vegetation will be disturbed beyond the designated "limits of clearing".

4.1.3 The Landscape Contractor will hand grub all blackberry varieties onsite. Weed debris will be disposed of off site.

4.1.4 The wetland area will be excavated to the depths shown on the Final Mitigation Grading Plan and brought to grade with 8" of topsoil. The biologist will be on-site to confirm the grading is acceptable for planting.

4.2 Plant Materials

4.2.1 All plant materials will be as specified in the plant schedule. Only vigorous plants free of defects, diseases and infestation are acceptable for installation.

4.2.2 All plant materials will conform to the standards and size requirements of ANSI Z60.1 "American Standard for Nursery Stock". All plant materials will be native to the northwest, and preferably the Puget Sound Region. Plant materials will be propagated from native stock; no cultivars or horticultural varieties will be allowed. All plant materials will be grown from nursery stock unless otherwise approved.

4.2.3 All nursery grown plant materials will be in containers or balled and burlapped. Bare root plantings will be subject to approval.

4.2.4 All plant materials stored on-site longer than two (2) weeks will be organized in rows and maintained by the contractor at no additional cost to the owner. Plant materials temporarily stored will be subject to inspection and approval prior to installation.

4.2.5 Substitution requests must be submitted in writing to the Owner and approved by the Owner's biologist in writing prior to delivery to site.

4.2.6 All plant materials will be dug, packed, transported and handled with care to ensure protection from injury. All plant materials to be stored on site more than 24 hours will be heeled into topsoil or sawdust. Precautionary measures shall be taken to ensure plant materials do not dry out before planting. Wetland plants will be shaded and saturated until time of installation. Immediately after installation the mitigation planting area will be saturated to avoid capillary stress.

4.2.7 The contractor will verify all plant materials, the quantities shown on the planting plan, and the plant schedule. The quantity of plant materials shown on the plan takes precedent over the quantity on the plant list.

4.3 Plant Installation

4.3.1 All plant materials must be inspected prior to installation to verify conformance of the materials with the plant schedule including size, quality and quantity. Any plant or habitat materials deemed unsatisfactory will be rejected.

4.3.2 All plant materials delivered and accepted should be planted immediately as depicted on the mitigation plan. Plant materials not planted within 24 hours will be heeled-in per note 3.2.6. Plant materials stored under temporary conditions will be the sole responsibility of the contractor. Plants will be protected at all times to prevent the root ball from drying out before, during, or after planting.

4.3.3 All planting pits will be circular with vertical sides, and will be sized per detail on the mitigation plan and filled with pit soils approved by the Owner's biologist. If native soils are determined to be unacceptable by the Owner's biologist, pit soils will be amended with Cedar Grove mulch or equivalent.

4.3.4 No fertilizers will be used within the wetland. In buffer areas only, install "Agriform", or equal plant fertilizer to all planting pits as specified by manufacturer. Fertilizers are allowed only below grade in the planting pits in the buffer areas. No sewage sludge fertilizer ("SteerCo" or "Growco") is allowed in the mitigation area.

4.3.5 All containerized plant materials will be removed from their containers carefully to prevent damage to the plant and its roots. Plants removed from their containers will be planted immediately.

4.3.6 All plant materials will be placed as shown on the approved mitigation plan. If the final installation varies from the approved mitigation plan, the contractor will provide a reproducible mylar as-built of the installed conditions. All plant material will be flagged by the contractor.

4.4 Planting Schedule and Warranty

4.4.1 A fall-winter installation schedule (October 1st - March 15th) is preferred for lower mortality rates of new plantings. If plant installation occurs during the spring or summer (March 15th - Oct. 1st) a temporary irrigation system will be required, unless the area can be sufficiently hand-watered.

4.4.2 All disturbed areas will be mulched or seeded with native mixes as specified on the plans, as soon as the mitigation area grading is complete. The seed must be germinated and a grass cover established by October 1st. If the cover is not adequately established by October 1st, exposed soils will be covered with approved erosion control material and the contractor will notify the Owner in writing of alternative soil stabilization method used.

4.4.3 The installer will warrant all plant materials to remain healthy and alive for a period of one year after final acceptance. The installer will replace all dead or unhealthy plant materials per the approved plans and specifications.

4.5 Site Conditions

4.5.1 The installer will coordinate with the Owner and the Owner's biologist for construction scheduling.

4.5.2 Landscape installation will begin after the City acceptance of grading and construction. The Owner will notify the Owner's biologist of acceptance of final grading.

4.5.3 Silt fences will be installed as shown on the approved mitigation grading plans. The installer is responsible for repair and replacement of silt fences disturbed during plant installation. No equipment or soils will be stored inside the silt fences.

4.5.4 After clearing and grading is complete in the mitigation area, exposed soils will be seeded or mulched. Orange construction fence will be placed around the mitigation area to prohibit equipment and personnel in the mitigation area.

4.5.5 Final grading will be based upon soil conditions found during excavation of the mitigation area.

4.5.6 All plant material will be planted with suitable soils per planting details. Soils from planting holes will be spread and smoothed across the mitigation area.

5.0 MAINTENANCE PROGRAM

This maintenance program outlines the program, procedures and goals for mitigation of the stream and buffer impacts at the mitigation site. This maintenance program will be the responsibility of the project owner through the duration of its ownership of the mitigation area, or throughout the duration of the monitoring period, whichever is longer. The maintenance contractor will complete the work as outlined below.

5.1 Maintenance Work Scope

5.1.1 To accomplish the mitigation goals, normal landscaping methods must be modified to include:

- a. No mowing or trimming of ground cover or vegetation in the mitigation area.
- b. No placement of fertilizers in the mitigation area.
- c. No placement of bark mulch or equivalent in the mitigation area, except as noted in the planting details.
- d. No placement of grass clippings, landscape debris, fill or ornamental plant materials in the mitigation area.

5.1.2 Work to be included in each site visit:

- a. Remove all litter including paper, plastic, bottles, construction debris, yard debris, etc.
- b. Remove all blackberry varieties and scotch broom within the mitigation area. All debris is to be removed from site and disposed in an approved landfill.
- c. Repair silt and/or permanent fencing and signage as needed.

5.1.3 Work to be completed on an annual basis includes:

- a. Areas containing Himalayan blackberry should be controlled by hand cutting the blackberry and treating the remaining cut stems only with a glyphosphate herbicide such as Roundup or Rodeo (applied by hand, not sprayed).
- b. Replace dead or failed plant materials. Replacement plantings are to be of same species, size and location as original plantings. Plantings are to be installed during the dormant period.
- c. Remove tree staking and guy wires from all trees after one year.

5.2 Maintenance Schedule

The Owner will conduct all items listed in the Maintenance Work Scope on an annual basis. Additional work may be required per the Monitoring Report and as approved by the City Biologist. Additional work may include removal of the grasses around each shrub and tree, installation of wood chips at each shrub and tree base, reseeding the mitigation area, re-staking existing trees and erosion control protection.

5.3 Watering Requirements

5.3.1 If plantings are installed within the dormant period throughout the winter months (October through March 15th), watering is not required. However, watering will be encouraged if plants mortality rises due to dry conditions.

5.3.2 If plantings are installed during the summer months (March through October 1st), a temporary irrigation system will be required, unless the area can be sufficiently hand-watered. The temporary irrigation system may be removed after the first year providing the plantings are established and acclimated to on-site conditions.

5.4 Close-out of Five-Year Monitoring Program

Upon completion of the monitoring program and acceptance of the wetland mitigation by the County Biologist, the maintenance of the project will be reduced to include removal of litter and debris, repair of perimeter fencing and signage, removal of noxious weeds and undesirable vegetation, and repair of vandalized areas.

6.0 WETLAND AND BUFFER MONITORING PROGRAM

6.1 Sampling Methodology

The created wetlands and their associated buffers will be monitored once per year over a five-year period, as required by the City. Monitoring will be conducted using the techniques and procedures described below to quantify the survival and relative health and growth of plant material. A monitoring report submitted following each monitoring visit will describe and quantify the status of the mitigation at that time. The monitoring schedule will be determined after the plant installation has been completed. Typically, the first monitoring visit occurs one year after the installation sign-off.

6.1.2 Vegetation

The vegetation monitoring consists of two tasks. The first is the inspection of the planted material to determine the health and vigor of the installation. All the planted material in the stream and buffer will be inspected during each monitoring visit to determine the level of survival of the installation.

6.1.3 Hydrology

Monitoring of hydrology within the created wetlands will be conducted to confirm that wetland hydrology has been created. Sampling points will be established within the created wetlands. At these points monitoring wells will be installed to determine the level of surface or groundwater in these areas.

6.2 Standards of Success

- 6.2.1. Evaluation of the success of the mitigation project will be based upon a 100% plant survival for all planted vegetation at the end of Year 1; 90% at the end of Year 2; 85% at the end of Year 3; and 80% at the end of Year 5.
- 6.2.2. Up to 20% of any stratum can be composed of desirable native volunteers when measuring cover.
- 6.2.3. No more than 10% cover of non-native or other invasive, e.g., Himalayan blackberry, Japanese knotweed, evergreen blackberry, reed canary grass, Scots broom, English ivy, morning glory, etc. Is permissible in any monitoring year. Bond-holders are encouraged to maintain mitigation sites within these standards through the monitoring period, to avoid corrective measures.
- 6.2.4. Wetland hydrology will be considered to be successfully attained when inundation or saturation within 12" of the surface is present for 2 continuous weeks or more in the growing season (March 15-Oct15).

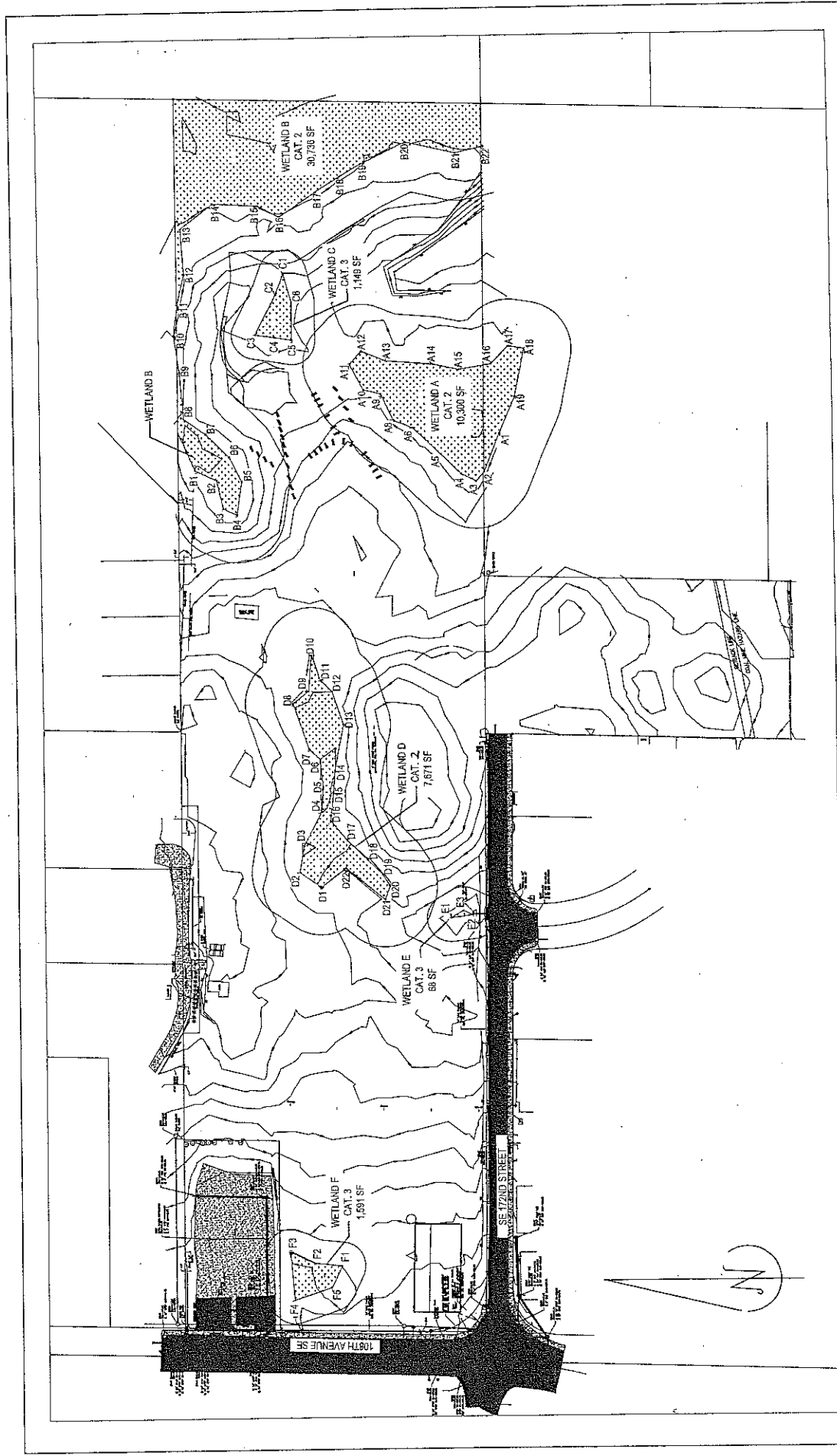
7.0 CONTINGENCY PLAN

7.1 A contingency plan can be implemented if necessary. Contingency plans can include regrading, additional plant installation, erosion control, modifications to hydrology, and plant substitutions including type, size, and location.

7.2 Careful attention to maintenance is essential in ensuring that problems do not arise. Should any of the site fail to meet the success criteria, a contingency plan will be developed and implemented with the County approval. Such plans are prepared on a case-by-case basis to reflect the failed mitigation characteristics.

7.3 Contingency/maintenance activities will include, but are not limited to:

- Replacing all plants lost to vandalism, drought, or disease, as necessary.
- Replacing any plant species with a 20 percent or greater mortality rate with the same species or similar species approved by the City Biologist.
- Irrigating the stream area only as necessary during dry weather if plants appear to be too dry, with a minimal quantity of water.
- Reseeding stream and buffer areas with an approved grass mixture as necessary if erosion/sedimentation occurs.
- Removing all trash or undesirable debris from the wetland and buffer areas as necessary.

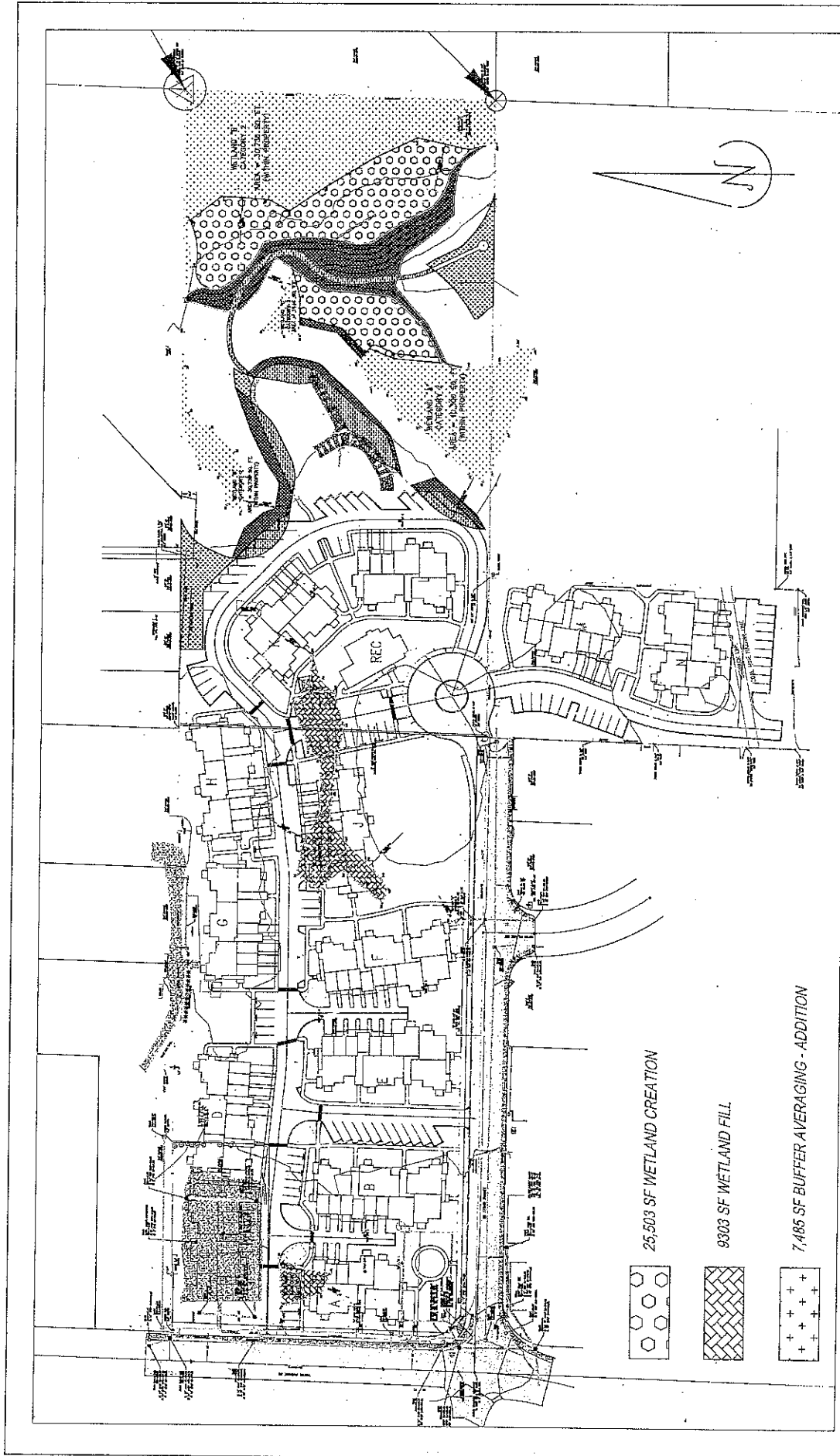


FILBROOK COMMONS
PNW HOLDINGS, LLC
WETLAND DELINEATION MAP

Job# 11-121 **DATE** DEC. 2011
DRAWN BY: ES **SCALE:** 1"=100'
REVISED: **DESIGNER:** TS

Note: Base map provided by D.R. Strong based upon survey of Sewall Wetland Consulting Wetland Delineation.

Sewall Wetland Consulting, Inc.
 Ecological Services
 27641 Covington Way SE#2
 Covington, WA 98042
 253-859-0515 FAX 253-852-4732



Note: Base map provided by D.R. Strong based upon survey of Sewall Wetland Consulting Wetland Delineation.

25,503 SF WETLAND CREATION
9303 SF WETLAND FILL
7,485 SF BUFFER AVERAGING - ADDITION
7,485 SF BUFFER AVERAGING - SUBTRACTION
15,934 SF BUFFER RESTORATION FOR TEMPORARY IMPACTS

FILDBROOK COMMONS
PNW HOLDINGS, LLC
CONCEPT DELINEATION MAP

JOB# 11-121 DATE DEC. 2011
DRAWN BY ES SCALE 1"=100'
REVISED: DESIGNER: TS

Sewall Wetland Consulting, Inc.
Ecological Services
27641 Covington Way SE#2
Covington, WA 98042
253-859-0015 Fax 253-852-4732



upland
near
wetland A

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project Site: Field break City/County: Tuvalu Sampling Date: 4-22-11
Applicant/Owner: PNU Biologicals State: WA Sampling Point: DPT#1
Investigator(s): EA Smith Section, Township, Range: S29, T23N, R5E
Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If No, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Yes _____ No _____
Are Vegetation, Soil, or Hydrology naturally problematic? Yes _____ No _____ (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____
Hydric Soil Present? Yes _____ No _____
Wetland Hydrology Present? Yes _____ No _____
Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: _____

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species?	Stature?	Notes
1. <u>Araucarioxylum</u>	<u>70</u>	<u>Yes</u>	<u>Yes</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Shrub Stratum (Plot size: _____)	_____	_____	_____	
1. <u>Araucarioxylum</u>	<u>41</u>	<u>Yes</u>	<u>Yes</u>	
2. <u>Diospyros crassifolia</u>	<u>30</u>	<u>Yes</u>	<u>Yes</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Herb Stratum (Plot size: _____)	_____	_____	_____	
1. <u>Polystrichum minutum</u>	<u>30</u>	<u>Yes</u>	<u>Yes</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum	_____	_____	_____	
Remarks: _____	_____	_____	_____	

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches): _____ Matrix: _____ Redox Features: _____ Texture: _____
Color (moist): _____ Color (dry): _____ % Type: _____
1. 10/10/2/2 20/20 gully run
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Type: Co-Consolidation, De-Consolidation, B/A=Reduced Matrix, CS=Covered or Coated Sand Grains.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
Histic (A1) _____ Sandy Redox (S8) _____
Histic Epilepton (A2) _____ Shaded Matrix (S9) _____
Black Histic (A3) _____ Loamy Mucky Mineral (F1) (except MLRA 1) _____
Hydrogen Sulfide (A4) _____ Loamy Gleyed Matrix (F2) _____
Depleted Below Dark Surface (A11) _____ Depleted Matrix (F3) _____
Thick Dark Surface (A12) _____ Redox Dark Surface (F8) _____
Sandy Gleyed Mineral (S1) _____ Depleted Dark Surface (F7) _____
Sandy Gleyed Matrix (S4) _____ Redox Depressions (F9) _____
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): _____
Type: _____
Depth (inches): _____
Hydric Soil Present? Yes _____ No _____
Remarks: no indicators

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (Minimum of one required; check all that apply):
Surface Water (A1) _____ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) _____
High Water Table (A2) _____ Salt Crust (B11) _____
Saturation (A3) _____ Aquatic Invertebrates (B13) _____
Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____
Sediment Deposits (B2) _____ Oxidized Rhizospheres along Living Roots (C3) _____
Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____
Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____
Iron Deposits (B5) _____ Surface Soil Cracks (B6) _____
Inundation Visible on Aerial Imagery (B7) _____ Sunken or Stressed Plants (D1) (LRR A) _____
Sparsely Vegetated Concave Surface (B8) _____ Other (Explain in Remarks) _____
Secondary Indicators (2 or more required):
Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) _____
Drainage Patterns (B10) _____
Dry-Season Water Table (C2) _____
Saturation Visible on Aerial Imagery (C3) _____
Geomorphic Features (D2) _____
Shallow Aquifers (D3) _____
FAC-Neutral Test (D5) _____
Raised Ant Mounds (D6) (LRR A) _____
Fresh-Have Hummocks (D7) _____

Field Observations:
Surface Water Present? Yes _____ No _____
Water Table Present? Yes _____ No _____
Saturation Present? Yes _____ No _____
Capillary Fringe (includes capillary fringe) Yes _____ No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Wetland Hydrology Present? Yes _____ No _____
Remarks: dry no indicators

wet A

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project Site: Field Creek City/County: Tuvalu Sampling Date: 4-22-11
Applicant/Owner: PMW Holdings State: WA Sampling Point: DPB-2
Investigator(s): ED Small Section, Township, Range: S29, T23N, R5E
Landform (hilltops, terraces, etc.): _____ Slope (%): _____
Subregion (LRR): _____ Loc. relief (concave, convex, none): _____ Datum: _____
Soil Map Unit Name: _____ Lat: _____ Long: _____ NWI classification: _____
Are climatic/hydrologic conditions on the site typical for the time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are vegetation/hydrology significantly disturbed? Yes ☐ No ☒ Are "Normal Circumstances" present? Yes ☒ No ☐
Are vegetation/hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Is the Sampled Area Within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐
Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>1m x 1m</u>)	Absolute % Cover: <u>50</u>	Dominant Indicator Status: <u>FAC</u>	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
Shrub/Stratum (Plot size: <u>1m x 1m</u>)	Absolute % Cover: <u>30</u>	Dominant Indicator Status: <u>FAC</u>	Prevalence Index Worksheet: Total % Cover of: OBL species: <u>x1 =</u> FACW species: <u>x2 =</u> FAC species: <u>x3 =</u> FACU species: <u>x4 =</u> UPL species: <u>x5 =</u> Column Total: <u>(A)</u> Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>1m x 1m</u>)	Absolute % Cover: _____	Dominant Indicator Status: _____	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test (if > 50%) 3 - Prevalence Index (if > 3.0) 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants 6 - Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Wetland/Vegetation Stratum (Plot size: _____)	Absolute % Cover: _____	Dominant Indicator Status: _____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
% Bare Ground in Herb Stratum	_____	Total Cover	
Remarks:			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (meters) _____ Matrix _____ Color (moist) _____ % _____ Texture _____ Remarks _____
4 10/12/11 _____
16 10/12/12 _____
Type, Concentration, Distribution, etc. (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Type: _____ Concentration: _____ Distribution: _____
Indicators for Problematic Hydric Soils:
1. Halos (A1) _____
2. Sandy Redox (S8) _____
3. Striped Matrix (S8) _____
4. Loamy Mucky Mineral (F1) (except MLRA 1) _____
5. Black Holes (A1) _____
6. Loamy Clayed Matrix (F2) _____
7. Hydrogen Sulfide (A4) _____
8. Deposited Below Dark Surface (A11) _____
9. Thick Dark Surface (A12) _____
10. Sandy Mucky Mineral (S1) _____
11. Deposited Dark Surface (F6) _____
12. Sandy Clayed Matrix (S4) _____
13. Redox Depressions (F9) _____
14. Restrictive Layer (if present): _____
15. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Present? Yes ☒ No ☐
Depth (inches): _____
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicator (Minimum of one required, check all that apply):
Surface Water (A1) _____
High Water Table (A2) _____
Saturation (A3) _____
Water Marks (B1) _____
Sediment Deposits (B2) _____
Drift Deposits (B3) _____
Algal Mat or Crust (B4) _____
Iron Deposits (B5) _____
Surface Soil Cracks (B6) _____
Inundation Visible on Aerial Imagery (B7) _____
Sporadically Vegetated Concave Surface (B8) _____
Secondary Indicators (2 or more required):
Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) _____
Drainage Patterns (B10) _____
Dry-Season Water Table (C2) _____
Saturation Visible on Aerial Imagery (C3) _____
Geomorphic Position (C2) _____
Shallow Aquitard (C3) _____
FAC-Natural Test (C5) _____
Raised Air Mounds (C6) (LRR A) _____
Frost-Heave Hummocks (C7) _____
Field Observations:
Surface Water Present? Yes ☒ No ☐ Depth (inches): 0
Water Table Present? Yes ☒ No ☐ Depth (inches): 0
Saturation Present? Yes ☒ No ☐ Depth (inches): 0
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

between wet A + wet C

[illegible]

no indicators

HYDROLOGY		Welland Hydrology Indicators:		Secondary Indicators (2 or more required):		
Primary Indicators (Minimum of one required; check all that apply)						
Surface Water (A1)	Yes	No	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	Yes	No	
High Water Table (A2)	Yes	No	MLRA 1, 2, 4A, and 4B	Yes	No	
Saturation (A3)	Yes	No	Salt Crust (B11)	Yes	No	
Water Marks (B1)	Yes	No	Aquatic Invertebrates (B13)	Yes	No	
Sediment Deposits (B2)	Yes	No	Hydrogen Sulfide Odor (C1)	Yes	No	
Drift Deposits (B3)	Yes	No	Oxidized Rhizospheres along Living Roots (C3)	Yes	No	
Algal Mat or Crust (B4)	Yes	No	Presence of Reduced Iron (C4)	Yes	No	
Iron Deposits (B5)	Yes	No	Recent Iron Reduction in Tilled Soil (C6)	Yes	No	
Surface Soil Cracks (B6)	Yes	No	Stunted or Stressed Plants (D1) (LRA A)	Yes	No	
Foundation Valves on Aerial Imagery (B7)	Yes	No	Other (Explain in Remarks)	Yes	No	
Sparsely Vegetated Concave Surface (B8)	Yes	No		Yes	No	
Field Observations:						
Surface Water Present?	Yes	No	Depth (inches):	Welland Hydrology Present?	Yes	No
Water Table Present?	Yes	No	Depth (inches):		Yes	No
Saturation Present?	Yes	No	Depth (inches):		Yes	No
Includes seepage, springs Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.						
Relative: No water						

wet B

(tors.)

Sand:

Sand:

Samples

Samples

22-11

wet c

Absolute	Dominant Indicator	Dominance Test worksheet;
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Western Mountains, Valleys, and Coast - Version 2.0

Sampling Point: -

Sampling Point. -

11-22-47

11-22-47

VEGETATION - Use scientific names of plants.

VEGETATION - Use scientific names of plants.

Sampling Point:

Sampling Point:

HYDROLOGY

HYDROLOGY

41
twe

Hydrophilic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: culvert at south end of wetland			

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
1. _____	_____	_____	_____	_____	<u>3</u>
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
_____ = Total Cover				Total Number of Dominant Species Across All Strata:	<u>3</u>
_____ = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC:	
_____ = Total Cover				Prevalence Index worksheet:	<u>66</u>
_____ = Total Cover				_____ = Prevalence Index	(AB)

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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

HYDROLOGY		Welland Hydrology Indicators:	
Primary Indicators: Minimum of one required; check all that apply.		Secondary Indicators: 12 or more required	
Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
High Water Table (A2)	MLRA 1, 2, 4A, and 4B		
Saturation (A3)	Salt Crust (B1)		
Water Marks (B1)	Aquatic Invertebrates (B13)		
Sediment Deposits (B2)	Hydrogen sulfide Odor (C1)		
Cliff Deposits (B3)	Oxidized Rhizospheres along Living Roots (C3)		
Iron Deposits (B5)	Presence of Reduced Iron (C4)		
Surface Soil Cracks (B6)	Recent Iron Reduction in Filled Soils (C6)		
Inundation Visible on Aerial Imagery (B7)	Gouled or Stressed Plants (D1) (LRR A)		
Sprayed Vegetated Concave Surface (B8)	Other (Explain in Remarks)		
Field Observations:			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	24
Salivation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	
(Indicate capillary fringe.)		Welland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photo, previous inspections), if available:			
Remarks:			

Wetland Hydrology Indicators:		Wetland Hydrology Present?	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	Yes	No
Surface Water (A1)	Water-Soaked Leaves (B9) <i>except</i>	Yes	No
High Water Table (A2)	MLRA 1, 2, 4A, and 4B	Yes	No
Saturation (A3)	Drainage Patterns (B10)	Yes	No
Water Marks (B1)	Dry-Season Water Table (C2)	Yes	No
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)	Yes	No
Drift Deposits (B3)	Geomorphic Position (D2)	Yes	No
Agal Mat or Crust (B4)	Shallow Aquifer (D3)	Yes	No
Iron Deposits (B5)	FAO-Neutral Test (D5)	Yes	No
Surface Soil Cracks (B6)	Related Air Mounds (D6) (LRR A)	Yes	No
Handcrown Visible on Aerial Imagery (B7)	Frost-Heave Hummocks (D7)	Yes	No
Sparsely Vegetated Concave Surface (B8)		Yes	No

Field Observations:		Wetland Hydrology Present?	
Yes	No	Yes	No
Surface Water Present?	Yes <input checked="" type="checkbox"/>	Depth (inches):	
Water Table Present?	Yes <input checked="" type="checkbox"/>	Depth (inches):	24
Saturation Present?	Yes <input checked="" type="checkbox"/>	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photo, previous inspections), if available:

Remarks:

11
5

11-22-1

SUMMARY OF FINDINGS - Attach the map showing sampling point locations, transects, important features,

oil's mixed +
churned

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species?	State
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
Shrub/Straw Stratum (Plot size: _____)	% Total Cover		
1. Red Poplar <u>Red Poplar</u>	_____	<u>FAC</u>	_____
2. <u>Red discolor</u>	_____	<u>FAC</u>	_____
3. <u>Spirea dogwood</u>	_____	<u>FAC</u>	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
Herb Stratum (Plot size: _____)	% Total Cover		
1. <u>Phloxes and moss</u>	_____	<u>FAC</u>	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
Waxy Moss Stratum (Plot size: _____)	% Total Cover		
1. _____	_____	_____	_____
2. _____	_____	_____	_____
% Bare Ground in Herb Stratum	_____		
Remarks: _____			

Compliance, East worksheet:

Number of Dominant Species that Are OBL, FACW, or FAC: 53 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species that Are OBL, FACW, or FAC: 75 (AB)

Prevalence Index worksheet:

Total % Cover of:	Multiple by:
OBL species _____	x 1 =
FACW species _____	x 2 =
FAC species _____	x 3 =
FACU species _____	x 4 =
UPL species _____	x 5 =
Column Totals: _____	(A)
Prevalence Index = B/A = _____	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation _____

2 - Dominance Test is >60% _____

3 - Prevalence Index is >3.0 _____

4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) _____

5 - Wetland Non-Vascular Plants _____

Problematic Hydrophytic Vegetation (Explain) _____

Indicators of hydroic acid and wetland hydrology must be present, unless clauiped or problematic.

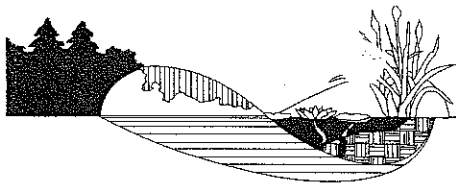
Hydrophytic Vegetation Present? Yes ☒ No ☐

Sample	SOIL	SOIL	Ind to document the indicator or confirm the absence of indicators.

[illegible]

HYDROLOGY

Wetland Hydrology indicators:		Secondary Indicators (2 or more required)	
Primary indicator (minimum of two required, check all that apply)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
High Water Table (A2)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Drainage Patterns (B10)	
Saturation (A3)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Dry-Season Water Table (C2)	
Water Marks (B1)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
Sediment Deposits (B2)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Geomorphic Position (D2)	
Drift Deposits (B3)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shallow Aquifer (D3)	
Algal Mat or Crust (B4)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	FAC-Neutral Test (D5)	
Iron Deposits (B5)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Raised Ant. Mounds (D6) (LRR A)	
Surface Soil Cracks (B6)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Frost-Heave Hummocks (D7)	
Inundation Visible on Aerial Imagery (B7)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Sparsely Vegetated Concave Surface (B8)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>10"</u>	
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



Sewall Wetland Consulting, Inc.

27641 Covington Way SE #2
Covington, WA 98042

Phone: 253-859-0515
Fax: 253-852-4732

December 14, 2011

Justin Lagers
PNW Holdings LLC
9725 SE 36th Street, Suite 214
Mercer Island, Washington 98040

City of Renton
Planning Division

JAN - 3 2012

RECEIVED

RE: Habitat Study – Fieldbrook Commons
City of Renton, Washington
SWC Job #11-121

Dear Justin,

This letter is in reference to the City of Renton's requirements for a Habitat Study for the Fieldbrook Commons project. The Fieldbrook Commons site is a 10.7 acre property on the east side of Benson Road South, and north of Cedar Avenue South (SE 172nd Street) in the City of Renton, Washington (the "site"). Specifically, the site consists of three abutting parcels (Parcels# 2923059168, 2923059022, and 29230599023) located in a portion of the SE 1/4 of Section 29, Township 23 North, Range 5 East of the Willamette Meridian in King County, Washington.

Typically a Habitat Study is required by the City when Critical Habitat as defined in the Code (RMC 4.03.050.K.1.a).

Critical habitats are defined in Code as follows.

a. Critical Habitat: Critical habitats are those habitat areas which meet any of the following criteria:

i. Habitats associated with the documented presence of non-salmonid (see subsection L1 of this Section and RMC 4-3-090, Shoreline Master Program Regulations, for salmonid species) species proposed or listed by the Federal government or State of Washington as endangered, threatened, candidate, sensitive, monitor, or priority; and/or

ii. Category 1 wetlands (refer to subsection M1 of this Section for classification criteria).

b. Mapping:

EXHIBIT 20

i. Critical habitats are identified by lists, categories and definitions of species promulgated by the Washington State Department of Fish and Wildlife (Non-game Data System Special Animal Species) as identified in WAC 232-12-011; in the Priority Habitat and Species Program of the Washington State Department of Fish and Wildlife; or by rules and regulations adopted currently or hereafter by the U.S. Fish and Wildlife Service.

ii. Referenced inventories and maps are to be used as guides to the general location and extent of critical habitat. Critical habitat which is identified in subsection K1a of this Section, but not shown on the referenced inventories and maps, are presumed to exist in the City and are also protected under all the provisions of this Section.

iii. The actual presence or absence of the criteria listed above, as determined by qualified professionals, shall govern the treatment of an individual building site or parcel of land requiring compliance with these regulations.

c. Performance Standards: In addition to the general standards of subsection E of this Section, the following performance standards, subsections K2 to K5 of this Section, apply to all non-exempt activities on sites containing critical habitat areas per subsection K1a of this Section.

2. Habitat Assessment Required: Based upon subsection K1 of this Section, Applicability, the City shall require a habitat/wildlife assessment for activities that are located within or abutting a critical habitat, or that are adjacent to a critical habitat, and have the potential to significantly impact a critical habitat. The assessment shall determine the extent, function and value of the critical habitat and potential for impacts and mitigation consistent with report requirements in RMC 4-8-120D. In cases where a proposal is not likely to significantly impact the critical habitat and there is sufficient information to determine the effects of a proposal, an applicant may request that this report be waived by the Department Administrator in accordance with subsection D4b of this Section.

A review of the WDFW Priority Habitats Mapping was conducted for the project. This was detailed on Page 6 of our November 8, 2011 Critical Areas Report for the Fieldbrook Commons project and is reproduced as follows;

3.1.4 WDFW Priority Habitat Website Map

According to the WDFW Priority Habitat Website with Public access layers activated, there is a wetland located along the east side of the site.



As shown above, WDFW has only identified a wetland (purple shading) along the east edge of the site. No state or federally listed species are identified or known to use the site. The wetland has been rated using the City of Renton methodology and is rated as a Category 2 wetland.

Our review of the site did not reveal any state or federally listed species on or near the site.

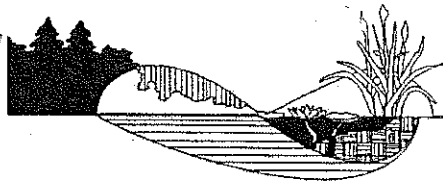
Conclusion

There is no "critical habitat" as defined by Code on or near the site.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.

Ed Sewall
Senior Wetlands Ecologist PWS #212



Sewall Wetland Consulting, Inc.

27641 Covington Way SE #2
Covington, WA 98042

Phone: 253-859-0515
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City of Renton
Planning Division

JAN - 3 2012

RECEIVED

December 14, 2011

Justin Lagers
PNW Holdings LLC
9725 SE 36th Street, Suite 214
Mercer Island, Washington 98040

RE: Supplemental Stream Study – Fieldbrook Commons
City of Renton, Washington
SWC Job #11-121

Dear Justin,

This letter is in reference to the City of Renton's requirements for a Supplemental Stream Study. Typically a Supplemental Stream Study is required for projects containing a stream within their limits, or within 100' of the study site. The Fieldbrook Commons site is a 10.7 acre property on the east side of Benson Road South, and north of Cedar Avenue South (SE 172nd Street) in the City of Renton, Washington (the "site"). Specifically, the site consists of three abutting parcels (Parcels# 2923059168, 2923059022, and 29230599023) located in a portion of the SE 1/4 of Section 29, Township 23 North, Range 5 East of the Willamette Meridian in King County, Washington.

There are no streams on the site. As detailed on Page 8 of our November 8th, 2011 Critical Areas Report for the project, there is a portion of a wetland, identified as Wetland B in the Critical Areas Report, that extends onto the east side of the site. This wetland forms a portion of the headwaters for Soos Creek. The paragraph below is from Page 8 of the Critical Areas Report under Wetland B;

Wetland B (flags B1-B22- 10,300sf on-site) consists of the western edge of a relatively large (@4-5 acres) located primarily off-site to the east. This wetland is known as a headwater wetland to Soos Creek, which forms further to the east of the site several hundred feet. This wetland is primarily forested although also contains a scrub-shrub component and a small portion (10%-20%) of seasonally standing water to the southeast of the site. Investigation into this wetland to a distance of 100' east of the eastern site boundary revealed no stream channel.

Although a stream is thought to form within this wetland, our investigation of the area over 100' to the east of the site revealed no stream channel. If there is a channel it is

EXHIBIT 21

>100' from the property boundary and the largest stream buffer that the City of Renton uses (100') would not encroach onto the property.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.

A handwritten signature in black ink, appearing to read 'Ed Sewall', written in a cursive style.

Ed Sewall
Senior Wetlands Ecologist PWS #212

FEB 29 2012

Technical Memorandum

RECEIVED



10230 NE Points Drive
Suite 400
Kirkland, WA 98033
Phone (425) 822-4446
Fax (425) 827-9577

To: Vanessa Dolbee, Senior Planner, City of Renton
Department of Community and Economic
Development
From: Stephanie Smith, Wetland Biologist
Copies:
Date: February 29, 2012
Subject: Critical Areas Review of Fieldbrook Commons
Project Documents
Project No.: 31989B

As requested by the City of Renton (City), Otak biologists conducted a site visit and reviewed documents provided by the City related to the proposed Fieldbrook Commons project for compliance with City of Renton Critical Areas Ordinances. The project proposes to construct a 161 unit Planned Use Development (PUD) with associated improvements on an approximately 10.7 acre site, located in Renton (City of Renton LUA12-001). The west side of the project site is bounded by Benson Road South (also called 108th Avenue SE) and the south side is bounded by Cedar Avenue S (also called SE 172nd Street). A vicinity map is located at the end of this document.

Introduction

A wetland delineation was conducted in April 2011 by the applicant's biologist that identified a total of six wetlands on the project site, which include: three Category II wetlands (Wetlands A, B, and D) and three Category III wetlands (Wetlands C, E, and F). The project site consists of three parcels (2923059168, 2923059022, and 29230599023). Two of the parcels create a long, narrow corridor east to west and the third parcel extends to the south to make the project site somewhat "T" shaped. The smallest parcel (2923059168), in the northwest corner of the project area, previously had a fire station on the property. The building has since been demolished, leaving the property vacant but for paved parking areas, gravel, and overgrown landscaping. The other two parcels that make up the project area are forested with some evidence of past use, including dilapidated buildings and adjacent mine tailings.

The project proposes to fill three wetlands (approximately 9,334 square feet) and provide compensatory mitigation onsite by creating approximately 25,508 square feet of wetland habitat. The proposed wetland mitigation area is located within the buffers of the existing wetlands on site that are not proposed to be filled.

This memorandum outlines general background information, the results of the site visit, findings of the review, and recommendations.

EXHIBIT 22

Documents Reviewed

- Critical Areas Report (dated November 8, 2011) by Sewall Wetland Consulting, Inc. Includes the Wetland Delineation Report and the Mitigation Memo;
- Supplemental Stream Study (dated December 14, 2011) by Sewall Wetland Consulting, Inc.;
- Habitat Study (dated December 14, 2011) by Sewall Wetland Consulting, Inc.;
- Sheet P1.1 Fieldbrook Commons Preliminary Site Plan (dated December 29, 2011) by Riebe & Associates, Inc. Architecture and Planning (site plan);
- Fieldbrook Commons Wetland Delineation Map (dated December 2011) by Sewall Wetland Consulting Inc. (wetland map);
- Fieldbrook Commons Concept Delineation Map (dated December 2011) by Sewall Wetland Consulting Inc. (wetland mitigation map); and
- Boundary and Topographic Survey for Fieldbrook (dated December 27, 2011) by Concept Engineering, Inc.

Background Information Sources

- City of Renton Municipal Code (RMC) accessed from:
<http://www.codepublishing.com/wa/renton/> (Referred to in this memorandum as *RMC*)
- The following maps were accessed from the City's website:
<http://rentonwa.gov/government/default.aspx?id=29885> (Referred to in this memorandum as *City CAO maps*)
 - City of Renton Aquifer Protection Map
 - City of Renton Coal Mine Hazard Map
 - City of Renton Erosion Hazard Map
 - City of Renton Flood Hazard Map
 - City of Renton Landslide Hazard Map
 - City of Renton Steep Slopes Map
- King County iMAP accessed from:
<http://www.kingcounty.gov/operations/gis/Maps/iMAP.aspx> (Referred to in this memorandum as *King County iMAP*).

Background Information

According to City CAO maps and King County iMAP, the following are mapped on the site:

- A portion of one Category II wetland (Wetland B);
- Coal Mine Hazard area; and
- Steep slopes (may be just off site).

General Site Assessment Comments

Otak biologists, Suzanne Anderson and Stephanie Smith, conducted a site visit on February 8, 2012 to assess general site and buffer conditions and to verify the delineated boundaries and ratings of

Wetlands A through F. The western and southern portions of the project area are generally flat, while the eastern section of the project area slopes down to the east. Just southeast of the project site there is a large hill with steep slopes that is a result of past mining activities, some of which may have taken place on the project site. The site is predominately forested, dominated by deciduous species including mature black cottonwoods (*Populus balsamifera* spp. *trichocarpa*), red alder (*Alnus rubra*), Oregon ash (*Fraxinus latifolia*), big-leaf maple (*Acer macrophyllum*), Western red cedar (*Thuja plicata*), and Douglas fir (*Pseudotsuga menziesii*). Dominant understory species onsite include Indian plum (*Oemleria cerasiformis*), beaked hazelnut (*Corylus cornuta*), red elderberry (*Sambucus racemosa*), salmonberry (*Rubus spectabilis*), red-osier dogwood (*Cornus sericea*), Oregon grape (*Mahonia aquifolia*), and sword fern (*Polystichum munitum*). There are some areas of the site with infestations of non-native invasive species, particularly Himalayan blackberry (*Rubus armeniacus*), holly (*Ilex aquifolium*), and yellow arch-angel (*Lamium galeobdolon*). All of these infestations are near the project site edges, outside of the wetlands and mostly located outside of the buffer areas.

I. Findings

I.a. Verification of Wetland Boundaries and Ratings

- I.a.1. We concur with the wetland delineation report that Wetlands A, B, and D are all rated as Category II (RMC 4.3-050M1.a.ii), with 50-foot buffers (RMC 4.3-050M6.c), and Wetlands C, E, and F are all rated as Category III (RMC 4.3-050M1.a.ii), with 25-foot buffers.
- I.a.2. We concur with the locations of the wetland boundary flags of Wetlands A through F.
- I.a.3. During Otak's site visit a wetland was observed on the east side of the parcel that extends to the south (parcel 2923059023). It is likely that this wetland is a result of past mining activities as it is a long, linear feature adjacent to a very tall and steep-sided hill (tailings). The wetland was not mentioned in the wetland delineation report, nor has it been assessed for its rating and required buffer width. The eastern portion of this wetland may be connected to Wetland B.

I.b. Critical Areas Report

- I.b.1. While each wetland was categorized in the report, the author does not state which criteria is being met for the wetland to receive this category. The entire City category definition is pasted into the report without justification.
- I.b.2. The function assessment of existing wetland and buffer functions and values is not supported by a recognized function assessment tool e.g. Washington State Department of Ecology (Ecology) (<http://www.ecy.wa.gov/pubs/0806009.pdf>).

I.c. Maps

- I.c.1. The topographic contours and many site descriptions are not legible on the wetland delineation or wetland concept maps and scale bars are not provided on all maps.
- I.c.2. Maps indicate that there is a Coal Mine Hazard Line at the south end of the southern parcel (parcel #2923059023). City critical areas maps indicate that the Coal Mine Hazard risk is unknown.
- I.c.3. There are slight discrepancies between the Concept Delineation Map and the Preliminary Site Plan Map. these discrepancies include:
 - The buffer to be created on the west side of Wetland B (the northwestern lobe) is smaller on the Preliminary Site Plan Map.
 - It is difficult to interpret whether there are differences between the design of the storm pond on the Delineation Concept and Preliminary Site Plan Maps.

I.d. Encroachment in Existing Wetland B Buffer

- I.d.1. According to site conditions and the wetland delineation map, the north/central section of the existing buffer for Wetland B appears to include an intrusion from a portion of the neighbor's back yard. If the buffer is being intruded upon from the neighboring yard, the applicant will need to restore the degraded portion of the buffer and include new fencing to prevent future intrusion.

I.e. Tree Retention

- I.e.1. The proposed project does not address the requirements of tree retention as outlined in RMC 4-4-130.

I.f. Mitigation Memo and Mitigation Plan Sheets

- I.f.1. The mitigation memo and associated plan sheets constitutes a conceptual mitigation plan.
- I.f.2. The project proposes to mitigate for the fill of existing wetlands D, E, and F by removing existing high functioning wetland buffers in order to create additional wetland. Wetland Buffer requirements per RMC 4-3-050M6.a.iii states "*All required wetland buffer zones shall be retained in their natural condition.*"
- I.f.3. The mitigation memo lacks many elements required by RMC 4-8-120D.23 and RMC 4-3-050M. The most important lacking elements are:
 - I.f.3.1. Native Growth Protection Areas: Requirements for placement of wetlands and buffers into a Native Growth Protection Area (NGPA) (RMC 4-3-050E4 and 4-3-050M7); as well as, specifications for NGPA signs, fencing, maintenance, and maintenance covenants (RMC 4-3-050E4);
 - I.f.3.2. Assessment and Comparison: Requirements to provide an assessment and

comparison of existing and proposed wetland and buffer functions and values using an approved methodology, e.g. Washington State Department of Ecology (Ecology) (<http://www.ecy.wa.gov/pubs/08060009.pdf>), to demonstrate that the proposed mitigation will achieve functional equivalency or improvement on a per function basis (RMC 4-3-050M11.d).

- l.f.3.3. Protecting Buffer Functions: Specifications for locating and directing lighting outside of and away from wetland and buffer areas (RMC 4-3-050M6.c.ii.b).
- l.f.3.4. Minimization: Requirements for minimizing wetland and buffer impacts is not addressed (RMC 4-8-120D23.i);
- l.f.3.5. Hydrology: There is no information to determine whether there will be sufficient hydrology to establish and maintain wetland hydrology, hydrophytic vegetation, and hydric soils at the proposed elevations within the wetland creation area.
 - There is no evidence to support the assumption that groundwater elevations in the wetland creation area will be the same as in the existing wetlands. In the wetland creation area between Wetlands A and C, there is an approximate 2-foot difference in elevation and in the wetland creation area on the west side of Wetland B there is generally a 4-foot difference, with as much as a 6-foot difference in elevation.
 - There is no information that determines how the construction of the berm proposed between the combined Wetlands A and C will prevent water in this larger, combined wetland from flowing out to Wetland B.
 - There is no information to determine that excavating adjacent to Wetland B (Soos Creek headwaters) will not harm and/or alter the existing wetland and stream hydrology and vegetation.
- l.f.3.6. Proposed Grasses: The specified planting of grass seeds in all disturbed portions of the buffer and created wetland. Grass has been shown to compete with and inhibit growth of installed woody plants, and tall grass can hide installed plants making them more difficult to locate during monitoring visits, and increase the likelihood of damage during maintenance activities.
- l.f.3.7. Performance Standards: adequate performance standards are not addressed and should be included to meet RMC 4-8-120D23 and those included in the Recommendations section below.
- l.f.3.8. Trails: The proposed trail will require significant grading adjacent to created wetlands, therefore the new buffers adjacent to trail (west of wetland B and east of wetlands A and C) will be very steep and will not provide the same functions as the current buffers (even once the forest grows back).
 - The trail is located through the center of the restored (proposed) buffer between Wetlands A and C and Wetland B. Trails are permitted in critical area buffers when they are located in the outer 25-percent of the buffer (RMC 4-3-050C7.a.i(2)).

- 1.f.3.9. Grading: The proposed extent of clearing/grading in the wetland mitigation buffer area is not shown on the plans, and the mitigation memo does not demonstrate that the proposed clearing/grading in the buffers is the minimum necessary for the project (RMC 4-8-120D.7 Definitions).
- 1.f.3.10. Storm Pond: The mitigation memo and plan sheets lack sufficient information to determine whether the stormwater pond proposed in the wetland buffer is an exempt activity pursuant to RMC 4-3-050C7.a.ii and meets the Wetland Protection Guidelines of the City's Surface Water Design Manual. Specific information that is lacking or cannot be confirmed because of the quality of drawings includes:
- The outside of the stormwater pond berms cannot be counted as buffer. The berms have to be counted as impact or not count as addition.
 - It is unclear if there is an outlet from the pond and if so, where the water outlets to.
 - It is assumed that the plans suggest grading into the existing buffer in order to construct the berm around the stormwater pond. Grading information and proposed slopes are not included on the drawings.
- 1.f.3.11. Required Permits: No documentation is provided that Ecology and the US Army Corps of Engineers (USACE) will permit the filling of Wetlands D, E, or F. The USACE will have to decide whether these wetlands are jurisdictional.
- Excavating adjacent to Wetland B is likely to require a USACE Nationwide Permit (NWP), and may also require a Hydraulic Permit Approval (HPA) from Washington Department of Fish and Wildlife (WDFW).
 - If the Corps also finds that either Wetlands A or C are jurisdictional, a USACE NWP may also be required for these actions.
- 1.f.3.12. Long Term Monitoring: The mitigation memo specifies five years of monitoring and maintenance which is sufficient per RMC. However, the possible requirement for State (Ecology or WDFW) or Federal (USACE) permits may require additional years of monitoring. Joint Guidance from Ecology, USACE, and the US Environmental Protection Agency (EPA) recommends monitoring and maintaining mitigation areas with forested communities for a minimum of ten years (<http://www.ecy.wa.gov/biblio/0606011a.html>).
- 1.f.3.13. Final Delineation: The mitigation memo does not include provisions for delineating the created wetland area at the end of the monitoring period to verify whether the required compensation is achieved.

1.g. Buffer Averaging

- 1.g.1. The mitigation memo does not specify how the areas of buffer addition and the remaining-reduced buffer portions will provide full functions, and how they will achieve no net loss of functions by buffer averaging (RMC 4-3-050M6.e and f).
- 1.g.2. The southern portion of the created wetland, adjacent to Wetland B appears to come

too close to the property line. Wetland creation cannot impose buffers on adjoining properties.

1.g.3. Areas that are proposed for buffer addition must provide like-functions to buffer that is being destroyed. The following buffer addition areas will need to be included in a restoration plan:

- Any buffer that will be added as proposed will either be disturbed by construction or installation of the mitigation plan
- The buffer addition area near the SE corner of the project area (where the proposed trail ends) primarily consists of a fill plateau (from past mining activities) and is heavily dominated by Himalayan blackberry.
- Proposed buffer addition on the northwest side of Wetland B. Currently this section contains a few trees, but is dominated by Himalayan blackberry and includes an intrusion from a neighboring yard. Additionally, the narrow rectangular portion (shown on Delineation Concept Map) of the addition (furthest west) will not provide adequate buffer functions as it will be sandwiched between neighboring fences and the proposed parking lot.

2. Recommendations

2.a. Offsite Wetlands: According to the RMC (4-3-050M3.a.i), *"The applicant shall be required to conduct a study to determine the classification of the wetland if the subject property or project area is within one hundred feet of a wetland even if the wetland is not located on the subject property but it is determined that alterations of the subject property are likely to impact the wetland in questions or its buffer."* If any portion of the wetland or buffer is located onsite, the site plans will need to be revised accordingly.

2.b. Wetland and Buffer Functions: provide an assessment and comparison of existing and proposed wetland and buffer functions and values using the Ecology methodology (<http://www.ecy.wa.gov/pubs/0806009.pdf>) to demonstrate that the proposed mitigation will achieve functional equivalency or improvement on a per function basis (RMC 4-3-050M11.d). Provide a table that compares existing and proposed wetland and buffer functions and values, such as that provided in the above mentioned methodology.

2.c. Maps: Future maps submitted should be printed at the appropriate scale and all contours and map notes should be legible. Provide appropriate scale bars on all maps.

2.d. Wetland B Buffer Encroachment: If the buffer is being intruded upon from the neighboring yard, the applicant will need to restore the degraded portion of the buffer and include new fencing to prevent future intrusion.

2.e. Tree Retention:

2.e.1. Per RMC 4-4-130 tree removal is an allowed activity under certain circumstances.

However, prohibited activities include tree removal from critical areas, including wetlands and their buffers (4-4-130D3). This chapter of the RMC also requires a tree removal and land clearing plan when a land development is submitted (4-4-130H2).

2.f. Mitigation Memo and Mitigation Plan Sheets:

- 2.f.1. Revise the mitigation memo and mitigation plan sheets to contain all of the elements required by RMC 4-3-050M and 4-8-120D23, and address the items listed in Section 1.f above.
- 2.f.2. Revise the mitigation memo and mitigation plan sheets to **retain the existing wetland buffers in their natural condition** (RMC 4-3-050M6.a.iii). The majority of buffers associated with Wetlands A, B, and C should not be changed from established, functional, mature forest in order to create new wetland.
- 2.f.3. Monitor Groundwater: If the revised wetland mitigation plan proposes wetland creation on-site, monitor the existing groundwater regime inside, and in the vicinity of, the proposed wetland creation area to inform the design and ensure a greater likelihood of successfully establishing wetland hydrology, hydrophytic vegetation, and hydric soils. Groundwater levels at the proposed created wetland elevations should be monitored according to guidance from the USACE:

<http://el.erdc.usace.army.mil/elpubs/pdf/twrap00-2.pdf> ;

<http://el.erdc.usace.army.mil/wrap/pdf/twrap05-2.pdf> ; and

<http://www.bwsr.state.mn.us/wetlands/wca/Water-Table-M-Design.pdf> .

- If berms are proposed to contain water in created wetlands, provide studies and construction plans regarding how the berm will function to retain water.
 - If Wetland B is expanded, a study will be required to determine how the expanded wetland will NOT impact the hydrology and vegetation of the existing wetland and associated stream.
- 2.f.4. Grass Seed: Remove provisions to plant grass seeds in the wetland mitigation area and buffer, and in disturbed/enhanced portions of the wetland buffers. Include provisions to apply and maintain a minimum of 6 inches of arborist mulch (or approved equivalent) to entire planting areas where native woody species are installed.
- 2.f.5. Performance Standards: Expand the performance standards to include:
- percent survival is only necessary for Years 1 and 2;
 - only installed plants can be counted towards satisfying the survival performance standards;
 - percent cover performance standards for native woody species (including both installed and desirable native volunteers) and native ground cover for Years 3 through 10;
 - species diversity performance standards for woody species for all 10 Years (native volunteers can be counted toward this performance standard); and

- provisions to incorporate 4 to 6 inches of compost into the upper 12 inches of all graded portions of the wetland creation area;
- permanent monitoring plots that reasonably represent the plant communities to be established as well as the size of the mitigation monitoring area. All four corners of each plot should be staked with metal fence posts or tall re-bar; and
- permanent photo points should also be established that represent the mitigation area.

2.f.6. Trails: the proposed trails in the mitigation wetland buffers must conform with RMC 4-3-050C7.a.i(2)., and the applicant must demonstrate that the construction and use of the proposed trails will not degrade wetland or buffer functions and values.

2.f.7. Grading Plans: provide clearing/grading plans in the wetland mitigation area that demonstrates the proposed clearing/grading in the buffers is the minimum necessary for the project (RMC 4-8-120D7).

2.f.8. Storm Pond: Provide detailed plans regarding the storm water pond. Information that specifically needs to be included:

- proposed outlet location and flow rate;
- specifications regarding emergency overflow
- information regarding how the adjacent wetlands and buffers will be protected from potential impacts regarding the outlet location(s); and
- provide a planting plan for the storm water pond. The target community should be similar to the existing vegetation onsite.

2.f.9. Permits: Provide documentation regarding the required permits from State and Federal agencies including Ecology, USACE, and WDFW.

2.f.10. Long Term Monitoring: Provide for ten years of monitoring and maintenance of the mitigation area, including the entire wetland mitigation buffer.

- To be consistent with guidance from the USACE and Ecology, Section 5 Monitoring Program should specify that Year 1 vegetation monitoring will occur in the at the end of growing season after the plants have been installed for at least one calendar year.
- At a minimum, monitoring should occur in Years 1, 2, 3, 4, 5, 7, and 10.
- Include specifications for monitoring hydrology in the wetland creation area from March through May in piezometers per guidance from USACE (<http://el.erdc.usace.army.mil/elpubs/pdf/twrap00-2.pdf>).

2.g. Buffers:

2.g.1. City code requires impacts to critical areas and their buffers be avoided, minimized, restored or compensated (RMC 4-3-050M8). Because avoiding all impacts does not appear possible, these impacts (permanent **and** temporary) must be **MINIMIZED**. Extensive proposed grading in the existing buffers does not minimize impact to these

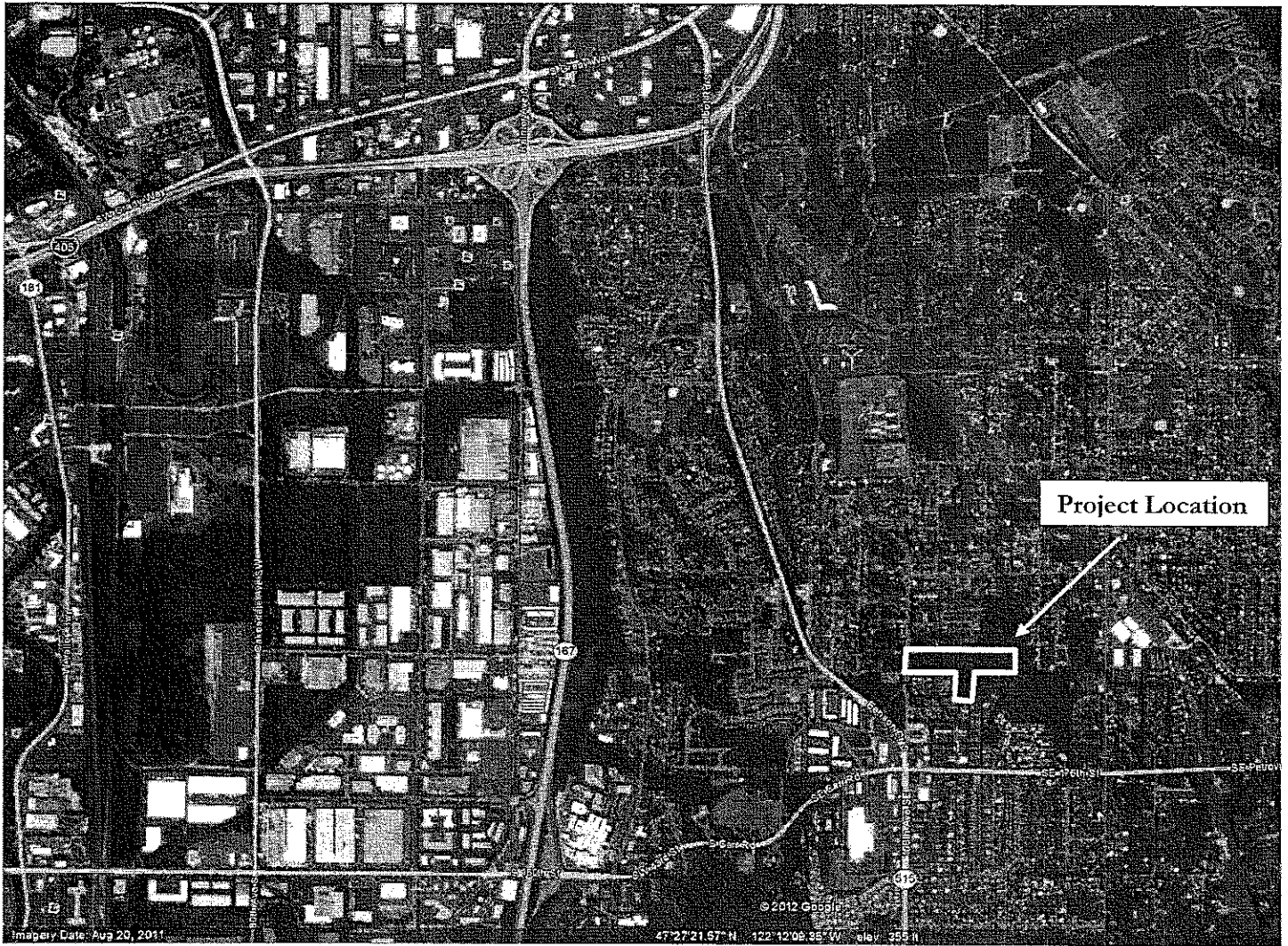
critical areas. In order to minimize impacts:

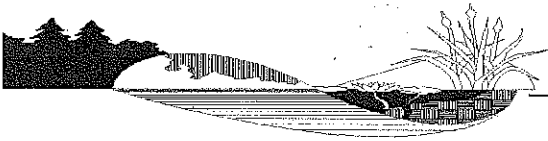
- Do not remove the existing functional wetland buffer in order to create new wetland;
- Retaining walls should be used adjacent to proposed trails, the storm water pond, and any other area where extensive grading would otherwise impact the buffer; and
- Buffer slopes should not be any steeper than they are under existing conditions.

2.g.2. At a minimum, all disturbed and invasive-dominated buffer additions, as well as the areas designated as “*buffer restoration for temporary impacts*” have to have an enhancement plan that includes (at a minimum): invasive removal; installation of appropriate native trees and shrubs; performance standards (less than 10% invasive cover, at least 80% survival for the first 2 years, reasonable % desirable woody cover, reasonable diversity of woody species); and monitoring, maintenance, and contingency plans.

2.h. Other Information:

- The Coal Mine Hazard Line needs to be addressed by the appropriate professional.





Sewall Wetland Consulting, Inc.

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Covington WA 98042

Phone: 253-859-0515
Fax: 253-852-4732

March 16, 2012

Vanessa Dolbee – Senior Planner
City of Renton
1055 South Grady Way
Renton, Washington 98057

CITY OF RENTON
RECEIVED
MAR 19 2012
BUILDING DIVISION

RE: Fieldbrook Critical Areas Review Response
SWC Job#11-121

Dear Vanessa,

I have reviewed the OTAK February 29, 2012, "Critical Areas Review of Fieldbrook Commons" letter. The following is our response to the Recommendations listed starting on Page 7 of the OTAK memo;

2.a. Offsite Wetlands: According to the RMC (4-3-050M3.a.i), "*The applicant shall be required to conduct a study to determine the classification of the wetland if the subject property or project area is within one hundred feet of a wetland even if the wetland is not located on the subject property but it is determined that alterations of the subject property are likely to impact the wetland in questions or its buffer.*" If any portion of the wetland or buffer is located onsite, the site plans will need to be revised accordingly.

As requested, we investigated the off-site wetland area identified by OTAK. It appears to be a linear extension of Wetland B. We measured the distance of this wetland to the eastern property line of the site and it was 55'. As this appears to be a part of Wetland B, this would also be a Category 2 wetland with a 50' buffer. This buffer would not extend onto the site.

2.b. Wetland and Buffer Functions: provide an assessment and comparison of existing and proposed wetland and buffer functions and values using the Ecology methodology (<http://www.ecy.wa.gov/pubs/0806009.pdf>) to demonstrate that the proposed mitigation will achieve functional equivalency or improvement on a per function basis (RMC 4-3-050M11.d). Provide a table that compares existing and proposed wetland and buffer functions and values, such as that provided in the above mentioned methodology.

EXHIBIT 23

2.c. Maps: Future maps submitted should be printed at the appropriate scale and all contours and map notes should be legible. Provide appropriate scale bars on all maps.

Maps contain scales and notes are legible in the copies provided to the City.

2.d. Wetland B Buffer Encroachment: If the buffer is being intruded upon from the neighboring yard, the applicant will need to restore the degraded portion of the buffer and include new fencing to prevent future intrusion.

This area will be restored by removing the fence and replanting with native trees and shrubs.

2.e. Tree Retention:

2.e.1. Per RMC 4-4-130 tree removal is an allowed activity under certain circumstances. However, prohibited activities include tree removal from critical areas, including wetlands and their buffers (4-4-130D3). This chapter of the RMC also requires a tree removal and land clearing plan when a land development is submitted (4-4-130H2).

It is impossible to fill any wetland that has trees and not remove them. Trees within the filled wetland will be removed. However, the proposed mitigation plantings replaces these trees with many more trees than will be removed. The areas of clearing within existing buffer of Wetland A for expansion of the wetland will also have trees removed. However, all of the new wetland and buffer will be planted with a dense planting of native trees and shrubs.

2.f. Mitigation Memo and Mitigation Plan Sheets:

2.f.1. Revise the mitigation memo and mitigation plan sheets to contain all of the elements required by RMC 4-3-050M and 4-8-120D23, and address the items listed in Section 1.f above.

The following are the sections under 1.f referred to;

1.f.1. The mitigation memo and associated plan sheets constitutes a conceptual mitigation plan.

1.f.2. The project proposes to mitigate for the fill of existing wetlands D, E, and F by removing existing high functioning wetland buffers in order to create additional wetland. Wetland Buffer requirements per RMC 4-3-050M6.a.iii states "*All required wetland buffer zones shall be retained in their natural condition.*"

The revised mitigation plan will not impact the buffer of Wetland B which is high functioning. Instead the new plan proposed creating wetland between Wetlands A and C and converting moderate function buffer to wetland, and then move the buffer to the edge of the newly created wetland. No loss in buffer function will occur as the same 50' buffer will be utilized on the new wetland creation area.

1.f.3. The mitigation memo lacks many elements required by RMC 4-8-120D.23 and RMC 4-3-050M. The most important lacking elements are: 1.f.3.1. Native Growth Protection Areas: Requirements for placement of wetlands and buffers into a Native Growth Protection Area (NGPA) (RMC 4-3-050E4 and 4-3-050M7); as well as, specifications for NGPA signs, fencing, maintenance, and maintenance covenants (RMC 4-3-050E4);

The final mitigation plan will depict NGPA areas as well as specific locations of signs and fencing.

1.f.3.2. Assessment and Comparison: Requirements to provide an assessment and comparison of existing and proposed wetland and buffer functions and values using an approved methodology to demonstrate that the proposed mitigation will achieve functional

Using the WADOE Wetland rating systems which is based upon 3 major recognized wetland functions, Wetland D scored a total of 33 points, indicating a Category 3 wetland which also indicates low-moderate overall functional value. Wetlands E & F scored 25 and 29 points, respectively. This indicates low function Category 4 wetlands.

As seen in Table 1 below, a substantial functional lift will be attained from the connection of Wetlands A and C with 25,508sf of additional wetland over the existing functions of the proposed fill wetlands.

Table 1. Functional Comparison of impact wetlands and proposed mitigation

Wetland	Area	Flood Storage capacity	Species Richness	Water Qual. Function	Hydrologic Function	Habitat Function	Category
Wetland D	7671sf	3800cuft	5 species	12pts	8pts	13pts	3
Wetland E	68sf	34cuft	2 species	11pts	4pts	10pts	4
Wetland F	1591sf	500cuft	5 species	10pts	8pts	11pts	4
Proposed	25508sf	7600cuft	15 species	24pts	20pts	21pts	2
Functional Lift	+16178sf	+3266cuft	+8species*	+12pts avg	+12pts avg	+9pts avg	+ 1 Category

*only 7 different species were found (excluding exotic/invasives) in Wetlands D,E &F

The newly created wetland will connect to existing Category 3 wetlands (Wetlands A and C) and provide enough lift that this wetland will now be considered a Category 2 wetland under the WADOE rating system. This is a substantial lift in function, surface water storage and species richness over the proposed low value Category 3 and 4 fill wetlands.

1.f.3.3. Protecting Buffer Functions: Specifications for locating and directing lighting outside of and away from wetland and buffer areas (RMC 4-3-050M6.c.ii.b).

This will be noted on site plans for portions of the development abutting the wetland and buffer areas.

1.f.3.4. Minimization: Requirements for minimizing wetland and buffer impacts is not addressed (RMC 4-8-120D23.i);

1.f.3.5. Hydrology: There is no information to determine whether there will be sufficient hydrology to establish and maintain wetland hydrology, hydrophytic vegetation, and hydric soils at the proposed elevations within the wetland creation area.

- There is no evidence to support the assumption that groundwater elevations in the wetland creation area will be the same as in the existing wetlands. In the wetland creation area between Wetlands A and C, there is an approximate 2-foot difference in elevation and in the wetland creation area on the west side of Wetland B there is generally a 4-foot difference, with as much as a 6-foot difference in elevation.

Currently we are monitoring groundwater within 6 wells within the new proposed wetland creation area between wetlands A and C. Current readings indicate groundwater is at a depth from 16"-28" below the surface. We will continue to monitor these points into April to develop an appropriate grading plan to create wetland conditions within the mitigation area.

The 2' elevation difference between Wetlands A & C will be considered when we prepare a final grading plan based upon groundwater elevations. Its possible that a small portion of the created wetland may have slope wetland characteristics. We have employed this type of grading in several wetland mitigation projects successfully. However, this will depend upon our findings of our hydrology monitoring which is currently being conducted.

- There is no information that determines how the construction of the berm proposed between the combined Wetlands A and C will prevent water in this larger, combined wetland from flowing out to Wetland B.

The use of a berm in this area if used, will be constructed of a soil material that will be an impediment to water passing through the berm through the use of a barrier such as clay.

- There is no information to determine that excavating adjacent to Wetland B (Soos Creek headwaters) will not harm and/or alter the existing wetland and stream hydrology and vegetation.

No impacts or excavation in the area of Wetland B are proposed at this time.

1.f.3.6. Proposed Grasses: The specified planting of grass seeds in all disturbed portions of the buffer and created wetland. Grass has been shown to compete with and inhibit growth of installed woody plants, and tall grass can hide installed plants making them more difficult to locate during monitoring visits, and increase the likelihood of damage during maintenance activities.

Grass seed will be eliminated from the planting plan. Use of chips or mulch will be utilized instead.

2.f.6. Trails: the proposed trails in the mitigation wetland buffers must conform with RMC 4-3-050C7.a.i(2), and the applicant must demonstrate that the construction and use of the proposed trails will not degrade wetland or buffer functions and values.

The trail was requested by the City. It has been removed from the plan so there will be no trail impacts.

2.f.7. Grading Plans: provide clearing/grading plans in the wetland mitigation area that demonstrates the proposed clearing/grading in the buffers is the minimum necessary for the project (RMC 4-8-120D7).

The plan has been revised to eliminate any connection to Wetland B. The plan will connect Wetlands A and C through the minimum grading required for the required wetland creation area. This will be based upon the results of our hydrology monitoring which started March 12, 2012. When we have sufficient early growing season hydrology data the grading plans for the mitigation area will be prepared. We anticipate that to be near the end of April-middle of May.

2.f.8. Storm Pond: Provide detailed plans regarding the storm water pond. Information that specifically needs to be included:

- proposed outlet location and flow rate;
- specifications regarding emergency overflow
- information regarding how the adjacent wetlands and buffers will be protected from potential impacts regarding the outlet location(s); and
- provide a planting plan for the storm water pond. The target community should be similar to the existing vegetation onsite.

The storm pond has been eliminated from the project and a buried vault will be utilized outside the wetland and associated buffers.

2.f.9. Permits: Provide documentation regarding the required permits from State and Federal agencies including Ecology, USACE, and WDFW.

When the City accepts the Conceptual Mitigation Plan, we can then prepare a Final Detailed Plan which would be suitable for submittal for a Nationwide Permit from the Army Corps of Engineers, as well as to WADOE for 410 Water quality Certification. It is premature to submit for these permits at this time as the required documents (Final mitigation plan and reports) have not been prepared.

2.f.10. Long Term Monitoring: Provide for ten years of monitoring and maintenance of the mitigation area, including the entire wetland mitigation buffer.

- To be consistent with guidance from the USACE and Ecology, Section 5 Monitoring Program should specify that Year 1 vegetation monitoring will occur in the at the end of growing season after the plants have been installed for at least one calendar year.
- At a minimum, monitoring should occur in Years 1, 2, 3, 4, 5, 7, and 10.
- Include specifications for monitoring hydrology in the wetland creation area from March through May in piezometers per guidance from USACE (<http://el.erdc.usace.army.mil/elpubs/pdf/twrap00-2.pdf>).

City of Renton Code requires monitoring and bonding of a wetland mitigation project for five years. Although it is likely that the Corps and WADOE may require 10 years of monitoring, the plan to be submitted to the City will meet the City Code of 5 years of monitoring. Hydrology monitoring of the creation area will be a component.

2.g. Buffers:

2.g.1. City code requires impacts to critical areas and their buffers be avoided, minimized, restored or compensated (RMC 4-3-050M8). Because avoiding all impacts does not appear possible, these impacts (permanent **and** temporary) must be **MINIMIZED**. Extensive proposed grading in the existing buffers does not minimize impact to these critical areas. In order to minimize impacts:

- Do not remove the existing functional wetland buffer in order to create new wetland;
- Retaining walls should be used adjacent to proposed trails, the storm water pond, and any other area where extensive grading would otherwise impact the buffer; and
- Buffer slopes should not be any steeper than they are under existing conditions.

In order to minimize impacts to the wetlands and buffers, the formerly proposed storm pond has been removed and replaced with a much more expensive vault outside the wetland and buffers.

The trail has also been removed from the wetland and buffers.

The previous mitigation proposed in the high functioning, conifer dominated buffer of Wetland B has been removed from the plan. Now all the mitigation/wetland creation is to occur between Wetlands A and C. Both of these wetlands are isolated and not associated with the larger Wetland B.

The proposed area for the creation is deciduous forest comprised of scattered big leaf maple, a single cottonwood, and understory of vine maple, elderberry, blackberry and Indian plum. This area has had past disturbance from mining and contains existing disturbed areas as well as some trash and debris. Portions also include a large man-made berm that is comprised of peat and coal tailings. Preliminary hydrology monitoring reveals groundwater at depths between 16"-28" of the surface within the proposed creation area. Soils in this area are gravelly loams on the surface with tighter clay soils beneath. Wetland creation in these types of soils is typically very successful. The proposed work in the buffers of these wetland to create over 25,000sf of additional wetland area will not remove pristine buffer. Additionally, the newly created wetland edge will then have a 50' buffer of existing forest to protect the resource. Any buffer area disturbed during the creation of the mitigation project will be restored with native tree and shrub species. All the large trees removed from the buffer and the grading of the wetland creation area will be utilized as habitat features (snags and large woody debris) within the wetland and buffer mitigation area.

2.g.2. At a minimum, all disturbed and invasive-dominated buffer additions, as well as the areas designated as "*buffer restoration for temporary impacts*" have to have an enhancement plan that includes (at a minimum): invasive removal; installation of appropriate native trees and shrubs; performance standards (less than 10% invasive cover, at least 80% survival for the first 2 years, reasonable % desirable woody cover, reasonable diversity of woody species); and monitoring, maintenance, and contingency plans.

All disturbed areas and the entire mitigation area will meet this goal.

If you have any questions or require any additional information please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetland Ecologist PWS #212

Attached: Revised Existing Conditions Map
 Revised Conceptual Mitigation Plan

1.0 CONCEPTUAL MITIGATION PROJECT OVERVIEW

To compensate for the fill of a 9,334sf Category 2 & 3 wetlands, it is proposed to create 25,508sf of wetland between Wetlands A and C.

2.0 MITIGATION CONCEPT AND GOALS

2.1 Mitigation Concept

The mitigation proposal is to connect Wetlands A and C with an area of 25,508sf of wetland. The wetland creation areas will be densely planted with native vegetation. The use of diverse native plantings are expected to significantly improve the overall function of the wetland and buffer as it will remove dense thickets of exotic blackberry as well as add emergent and shrub plant communities into what is now, a single class forested wetland.

2.2 Mitigation Goals

2.2.1 Create 25,508sf of emergent, scrub shrub and forested wetland.

3.0 CONSTRUCTION SEQUENCE

The construction sequence of this project will be implemented as follows:

- 3.1 Pre-construction meeting
- 3.2 Construction staking
- 3.3 Construction fencing and erosion control
- 3.4 Clearing and grading
- 3.5 Stabilization of mitigation area
- 3.6 Plant material installation
- 3.7 Construction inspection
- 3.8 Agency approval
- 3.9 Monitoring inspection and reporting
- 3.10 Silt fence removal
- 3.11 Project completion

3.1 Pre-construction Meeting

A pre-construction meeting will be held on-site prior to commencement of construction, to include the biologist, the City, and the contractor. The approved plans and specifications will be reviewed to ensure that all parties involved

understand the intent of the construction documents, specifications, site environmental constraints, sequences, and inspection requirements.

3.2 Construction Staking

The limits of clearing and grading near the critical areas will be marked in the field by a licensed professional land surveyor prior to commencement of construction activities.

3.3 Construction Fencing & Erosion Control

All erosion control measures adjacent to the critical areas, including silt fencing and orange construction fencing, will be installed. Erosion control fencing will remain around the mitigation area until clearing, grading and mulch placement are complete in upland areas outside the critical areas.

3.4 Clearing & Grading

Clearing and grading in and near the existing sensitive area will be per the approved Final Mitigation Plans.

3.5 Stabilization of Mitigation Area

All graded areas in the wetland or buffer will be stabilized with mulch upon completion of grading. Orange construction fencing and erosion control fences will be restored (if necessary) and placed around the critical areas.

3.6 Plant Material Installation

All plant material will be planted by hand per detail and Construction and Planting Notes. The Mitigation Plan specifies the required size, species, quantity, and location of plant materials to be installed. The contractor will mulch areas disturbed during the planting process. Upon completion of the planting, the erosion control fencing will be restored and repaired. Plant substitutions or modifications to locations shall be approved in writing by the Owner's biologist prior to installation.

3.7 Construction Inspection

Upon completion of installation, the County's biologist will conduct an inspection to confirm proper implementation of the Mitigation Plan. Any corrections, substitutions or missing items will be identified in a "punch list" for the landscape contractor. Items of particular importance will be soils in pits, pit size, plant species, plant size, mulch around pits, and tree staking.

Upon completion of planting, if installation or materials vary significantly from the Mitigation Plan, the contractor will submit a reproducible "as-built" drawing to the Owner.

3.8 Agency Approval

Following acceptance of the installation by the City, the County biologist should prepare a letter granting approval of the installation.

3.9 Monitoring

The site will be monitored for 5 years to insure the success of the mitigation project.

3.10 Silt Fence Removal

Erosion control fencing adjacent to the mitigation area will remain in place for at least one year, and/or until all areas adjacent to the mitigation area have been stabilized. The County's Biologist may recommend that the fencing remain in place for a longer duration.

4.0 CONSTRUCTION AND PLANTING NOTES

4.1 Site Preparation & Grading

4.1.1 The Landscape Contractor will approve existing conditions of subgrade prior to initiation of any mitigation installation work.

The Landscape Contractor will inform the Owner of any discrepancies between the approved construction document and existing conditions.

4.1.2 The General Contractor will flag the limits of clearing with orange construction fencing and will observe these limits during construction. No natural features or vegetation will be disturbed beyond the designated "limits of clearing".

4.1.3 The Landscape Contractor will hand grub all blackberry varieties onsite. Weed debris will be disposed of off site.

4.1.4 The wetland area will be excavated to the depths shown on the Final Mitigation Grading Plan and brought to grade with 8" of topsoil. The biologist will be on-site to confirm the grading is acceptable for planting.

4.2 Plant Materials

4.2.1 All plant materials will be as specified in the plant schedule. Only vigorous plants free of defects, diseases and infestation are acceptable for installation.

4.2.2 All plant materials will conform to the standards and size requirements of ANSI Z60.1 "American Standard for Nursery Stock". All plant materials will be native to the northwest, and preferably the Puget Sound Region. Plant materials will be propagated from native stock; no cultivars or horticultural varieties will be allowed. All plant materials will be grown from nursery stock unless otherwise approved.

4.2.3 All nursery grown plant materials will be in containers or balled and burlapped. Bare root plantings will be subject to approval.

4.2.4 All plant materials stored on-site longer than two (2) weeks will be organized in rows and maintained by the contractor at no additional cost to the owner. Plant materials temporarily stored will be subject to inspection and approval prior to installation.

4.2.5 Substitution requests must be submitted in writing to the Owner and approved by the Owner's biologist in writing prior to delivery to site.

4.2.6 All plant materials will be dug, packed, transported and handled with care to ensure protection from injury. All plant materials to be stored on site more than 24 hours will be heeled into topsoil or sawdust. Precautionary measures shall be taken to ensure plant materials do not dry out before planting. Wetland plants will be shaded and saturated until time of installation. Immediately after installation the mitigation planting area will be saturated to avoid capillary stress.

4.2.7 The contractor will verify all plant materials, the quantities shown on the planting plan, and the plant schedule. The quantity of plant materials shown on the plan takes precedent over the quantity on the plant list.

4.3 Plant Installation

4.3.1 All plant materials must be inspected prior to installation to verify conformance of the materials with the plant schedule including size, quality and quantity. Any plant or habitat materials deemed unsatisfactory will be rejected.

4.3.2 All plant materials delivered and accepted should be planted immediately as depicted on the mitigation plan. Plant materials not planted within 24 hours will be heeled-in per note 3.2.6. Plant materials stored under temporary conditions will be the sole responsibility of the contractor. Plants will be protected at all times to prevent the root ball from drying out before, during, or after planting.

4.3.3 All planting pits will be circular with vertical sides, and will be sized per detail on the mitigation plan and filled with pit soils approved by the Owner's biologist. If native soils are determined to be unacceptable by the Owner's biologist, pit soils will be amended with Cedar Grove mulch or equivalent.

4.3.4 No fertilizers will be used within the wetland. In buffer areas only, install "Agriform", or equal plant fertilizer to all planting pits as specified by manufacturer. Fertilizers are allowed only below grade in the planting pits in the buffer areas. No sewage sludge fertilizer ("SteerCo" or "Growco") is allowed in the mitigation area.

4.3.5 All containerized plant materials will be removed from their containers carefully to prevent damage to the plant and its roots. Plants removed from their containers will be planted immediately.

4.3.6 All plant materials will be placed as shown on the approved mitigation plan. If the final installation varies from the approved mitigation plan, the contractor will provide a reproducible mylar as-built of the installed conditions. All plant material will be flagged by the contractor.

4.4 Planting Schedule and Warranty

4.4.1 A fall-winter installation schedule (October 1st - March 15th) is preferred for lower mortality rates of new plantings. If plant installation occurs during the spring or summer (March 15th - Oct. 1st) a temporary irrigation system will be required, unless the area can be sufficiently hand-watered.

4.4.2 All disturbed areas will be mulched or seeded with native mixes as specified on the plans, as soon as the mitigation area grading is complete. The seed must be germinated and a grass cover established by October 1st. If the cover is not adequately established by October 1st, exposed soils will be covered with approved erosion control material and the contractor will notify the Owner in writing of alternative soil stabilization method used.

4.4.3 The installer will warrant all plant materials to remain healthy and alive for a period of one year after final acceptance. The installer will replace all dead or unhealthy plant materials per the approved plans and specifications.

4.5 Site Conditions

4.5.1 The installer will coordinate with the Owner and the Owner's biologist for construction scheduling.

4.5.2 Landscape installation will begin after the City acceptance of grading and construction. The Owner will notify the Owner's biologist of acceptance of final grading.

4.5.3 Silt fences will be installed as shown on the approved mitigation grading plans. The installer is responsible for repair and replacement of silt fences disturbed during plant installation. No equipment or soils will be stored inside the silt fences.

4.5.4 After clearing and grading is complete in the mitigation area, exposed soils will be seeded or mulched. Orange construction fence will be placed around the mitigation area to prohibit equipment and personnel in the mitigation area.

4.5.5 Final grading will be based upon soil conditions found during excavation of the mitigation area.

4.5.6 All plant material will be planted with suitable soils per planting details. Soils from planting holes will be spread and smoothed across the mitigation area.

5.0 MAINTENANCE PROGRAM

This maintenance program outlines the program, procedures and goals for mitigation of the stream and buffer impacts at the mitigation site. This maintenance program will be the responsibility of the project owner through the duration of its ownership of the mitigation area, or throughout the duration of the monitoring period, whichever is longer. The maintenance contractor will complete the work as outlined below.

5.1 Maintenance Work Scope

5.1.1 To accomplish the mitigation goals, normal landscaping methods must be modified to include:

- a. No mowing or trimming of ground cover or vegetation in the mitigation area.
- b. No placement of fertilizers in the mitigation area.
- c. No placement of bark mulch or equivalent in the mitigation area, except as noted in the planting details.
- d. No placement of grass clippings, landscape debris, fill or ornamental plant materials in the mitigation area.

5.1.2 Work to be included in each site visit:

- a. Remove all litter including paper, plastic, bottles, construction debris, yard debris, etc.
- b. Remove all blackberry varieties and scotch broom within the mitigation area. All debris is to be removed from site and disposed in an approved landfill.
- c. Repair silt and/or permanent fencing and signage as needed.

5.1.3 Work to be completed on an annual basis includes:

- a. Areas containing Himalayan blackberry should be controlled by hand cutting the blackberry and treating the remaining cut stems only with a glyphosphate herbicide such as Roundup or Rodeo (applied by hand, not sprayed).
- b. Replace dead or failed plant materials. Replacement plantings are to be of same species, size and location as original plantings. Plantings are to be installed during the dormant period.
- c. Remove tree staking and guy wires from all trees after one year.

5.2 Maintenance Schedule

The Owner will conduct all items listed in the Maintenance Work Scope on an annual basis. Additional work may be required per the Monitoring Report and as approved by the City Biologist. Additional work may include removal of the grasses around each shrub and tree, installation of wood chips at each shrub and tree base, reseeding the mitigation area, re-staking existing trees and erosion control protection.

5.3 Watering Requirements

5.3.1 If plantings are installed within the dormant period throughout the winter months (October through March 15th), watering is not required. However, watering will be encouraged if plants mortality rises due to dry conditions.

5.3.2 If plantings are installed during the summer months (March through October 1st), a temporary irrigation system will be required, unless the area can be sufficiently hand-watered. The temporary irrigation system may be removed after the first year providing the plantings are established and acclimated to on-site conditions.

5.4 Close-out of Five-Year Monitoring Program

Upon completion of the monitoring program and acceptance of the wetland mitigation by the County Biologist, the maintenance of the project will be reduced to include removal of litter and debris, repair of perimeter fencing and signage, removal of noxious weeds and undesirable vegetation, and repair of vandalized areas.

6.0 WETLAND AND BUFFER MONITORING PROGRAM

6.1 Sampling Methodology

The created wetlands and their associated buffers will be monitored once per year over a five-year period, as required by the City. Monitoring will be conducted using the techniques and procedures described below to quantify the survival and relative health and growth of plant material. A monitoring report submitted following each monitoring visit will describe and quantify the status of the mitigation at that time. The monitoring schedule will be determined after the plant installation has been completed. Typically, the first monitoring visit occurs one year after the installation sign-off.

6.1.1 Hydrology

Wetland hydrology will be monitored using four (4) combination staff/crest gauges located within the restoration area to be placed at the time of the installation sign-off by the biologist. Surface water level or ground water saturation depths will be measured at these stations to determine if wetland hydrology has been successfully attained. As is noted in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), wetland hydrology is defined as inundation or soil saturation (usually within 12" of the surface) during the growing season. The growing season for this area is generally defined as the period between the middle of March and the middle of November. However, plant growth often occurs earlier in the year and sound professional judgment will be needed to determine when the growing season is taking place at the site.

Wetland hydrology will be considered successfully created if wetland hydrology is observed inundating or saturating the soil within 12 inches of the surface during the growing season. Readings will be made early in the growing season (@ March 15) to determine if wetland hydrology is present.

6.1.2 Vegetation

The vegetation monitoring consists of inspection of the planted material to determine the health and vigor of the installation, as well as coverage estimates. All the planted material in the wetland and buffer will be inspected during each monitoring visit to determine the level of survival of the installation.

All plants will be inspected and recorded as to whether they are alive or dead based upon the "as-built" in Years 1 & 2. In Years 3-5, coverage estimates will be used to determine success of the vegetation component.

Two (2) transects will be established across the mitigation site within each plant community for a total of 6 transects. Within the emergent plant community coverage of vegetation will be measured with 0.25m rectangular plots. Estimates of coverage percentages will be made within these plots. A total of 10 sample points within the herbaceous/emergent plant community will be randomly located during the installation sign off. At each of these points four samples, one in each quadrant will be taken.

Within the scrub-shrub and forested plant communities 1/100 acre, circular plots will be used. A total of 10 randomly located plots along each transect will be recorded. Within each plot coverage estimates for both emergent and woody species will be recorded.

Photographs of the mitigation area will be taken from 6 photo points to be located during the installation sign off. Photographs will be taken at each of the monitoring and included with the monitoring report for each year from these points.

6.2 STANDARDS OF SUCCESS

- 1.a Evaluation of the success of the mitigation project will be based upon an 100% survival for all planted woody vegetation at the end of year 1.

- 1.b Evaluation of the success of the mitigation project will be based upon an 90% survival for all planted woody vegetation at the end of years 2.
- 1.c Years 3&5- Achieve at least 60% cover of woody species in shrub and forested plant communities by Years 3&4 and 50% cover of emergent species.
- 1.d Not more than 10% cover of non-native invasive species within mitigation area after year 10.
2. The wetland mitigation project will create 25,508sf of wetland meeting at least the vegetation and hydrology criteria for a wetland as described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987).
3. Volunteer native, non-invasive species will be included as acceptable components of the mitigation.

7.0 CONTINGENCY PLAN

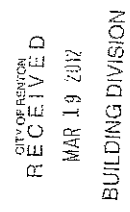
7.1 A contingency plan can be implemented if necessary. Contingency plans can include regrading, additional plant installation, erosion control, modifications to hydrology, and plant substitutions including type, size, and location.

7.2 Careful attention to maintenance is essential in ensuring that problems do not arise. Should any of the site fail to meet the success criteria, a contingency plan will be developed and implemented with the County approval. Such plans are prepared on a case-by-case basis to reflect the failed mitigation characteristics.

7.3 Contingency/maintenance activities will include, but are not limited to:

- Replacing all plants lost to vandalism, drought, or disease, as necessary.
- Replacing any plant species with a 20 percent or greater mortality rate with the same species or similar species approved by the City Biologist.
- Irrigating the stream area only as necessary during dry weather if plants appear to be too dry, with a minimal quantity of water.

- Reseeding stream and buffer areas with an approved grass mixture as necessary if erosion/sedimentation occurs.
- Removing all trash or undesirable debris from the wetland and buffer areas as necessary.



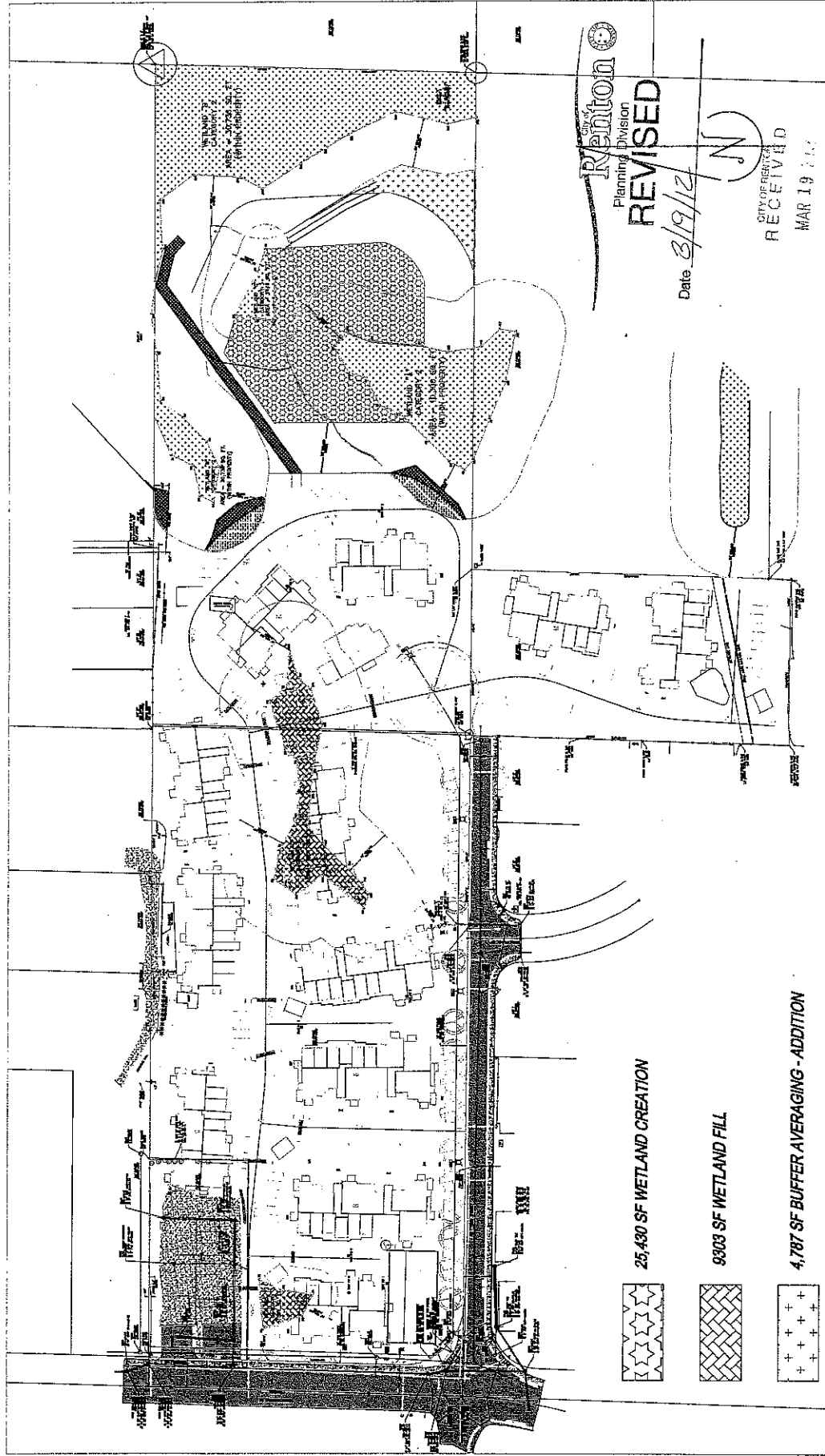
**City of
Renton**
Planning Division
REVISED


JOB# 11-121 DATE: DEC. 2011
DRAWN BY: ES SCALE: 1"=100'
REVISED: MARCH 2012 DESIGNER: TS

FILDBROOK COMMONS
PNW HOLDINGS, LLC
WETLAND DELINEATION MAP

Note: Base map provided by D.R. Strong based upon survey of Sewall Wetland Consulting Wetland Delineation.

Sewall Wetland Consulting, Inc.
Ecological Services
27641 Covington Way SE#2
Covington, WA 98042
253-859-0515 Fax 253-852-4732





 Planning Division

REVISED

 Date 3/19/12

 CITY OF RENTON

 RECEIVED

 MAR 19 2012


 BUILDING DIVISION

Note: Base map provided by D.R. Strong based upon survey of Sewall Wetland Consulting Wetland Delineation.

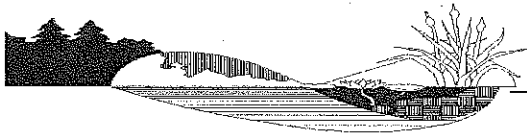
JOB#	11-121	DATE	DEC. 2011
DRAWN BY:	ES	SCALE:	1"=100'
REVISED:	MAR. 2012	DESIGNER:	TS

FILDBROOK COMMONS
 PNW HOLDINGS, LLC
 CONCEPT DELINEATION MAP

25,430 SF WETLAND CREATION
 9303 SF WETLAND FILL
 4,787 SF BUFFER AVERAGING - ADDITION
 2,134 SF BUFFER AVERAGING - SUBTRACTION
 4,688 SF BUFFER RESTORATION FOR TEMPORARY IMPACTS



 Sewall Wetland Consulting, Inc.
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 Covington, WA 98042
 253-859-0515 Fax 253-852-4732



Sewall Wetland Consulting, Inc.

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Fax: 253-852-4732

April 10, 2012

Vanessa Dolbee – Senior Planner
City of Renton
1055 South Grady Way
Renton, Washington 98057

CITY OF RENTON
RECEIVED

APR 10 2012

BUILDING DIVISION

RE: Fieldbrook Critical Areas Review Response – LUA12-001
SWC Job#11-121

Dear Vanessa,

This is a response to your March 30, 2012 email regarding the Fieldbrook Commons project. Below in *italics* are the items you asked us to address. After each item we have provided a response;

1. *The Map was not drawn to a 1 to 100 scale, it appears to be drawn to a 1 to 50 scale. Please provide a map drawn to scale including a "drawn" scale.*

The plan is now shown with a "drawn scale" and is at a scale of 1"=100'.

2. *The buffer averaging square footage was not provided per area.*

The areas of buffer reduction and buffer addition using buffer averaging are now shown on the mitigation plan (see attached).

3. *The new buffer distances were not provided in areas of reduced buffer.*

Dimensions are now included in the areas of reduced buffer as requested.

4. *A grading and clearing plan for the wetland creation shall be provided, including the total area of permanent impact and temporary impact.*

At this point in time we are still monitoring groundwater levels within the proposed creation area. So far monitoring has shown groundwater levels between 16"-28" below the existing surface of the proposed creation area. However, we need to monitor the area for approximately 1 more month to completely understand the hydrology of this area as it pertains to creating an appropriate grading plan that will allow us a higher certainty on creating adequate wetland hydrology. At that time we will prepare a grading plan which will depict the area to be graded and all areas to be

EXHIBIT 24

replanted in the creation area and any area within the buffer that would be graded back and require restoration.

5. RMC 4-8-120 D.23.i, this was not addressed.

This section of Code states the following;

i. Alternative Methods of Development: If wetland changes are proposed, the applicant shall evaluate alternative methods of developing the property using the following criteria in this order:

- *Avoid any disturbances to the wetland or buffer;*
- *Minimize any wetland or buffer impacts;*
- *Compensate for any wetland or buffer impacts;*
- *Restore any wetlands or buffer impacted or lost temporarily;*
- *Create new wetlands and buffers for those lost; and*
- *In addition to restoring a wetland or creating a wetland, enhance an existing degraded wetland to compensate for lost functions and values.*

This evaluation shall be submitted to the Department Administrator. Any proposed alteration of wetlands shall be evaluated by the Department Administrator using the above hierarchy.

a. Avoid any disturbances to the wetland or buffer:

The site contains three small wetlands which the developer proposes to fill and mitigate for through the creation of a new wetland area and enhanced buffer areas between Wetlands A and C on the eastern third of the site. Wetland (F) located on the western side of the site is Category 3 wetland measuring 1595sf. Due to the requirement to provide a secondary fire access directly out to 108th Ave S.E. the developer is unable to avoid direct impact to this wetland. Wetland (E) located in the center of the site and adjacent to S.E. 172nd St. measures 68sf and is rated as a Category 3 wetland. Due to the requirement to dedicate and construct the other half of the S.E. 172nd St. ROW the developer is unable to avoid direct impacts to this wetland. Wetland (D) is located generally in the center of the project and is rated as a Category 2 wetland measuring 7671sf. This wetland is located in the center of the site, and the preservation of this wetland with its associated buffer would remove such a large portion of the property as to not be feasible to develop in any way.

b. Minimize any wetland or buffer impacts:

The developer previously attempted to plan roadways and improvements around Wetland D, however the location and shape of the wetland impacted the vehicular circulation and building locations to such an extent that the project would not be financially feasible to

construct. The project has minimized impacts by avoiding impacts to Wetlands A, B and C and their associated buffers. These are the more valuable wetlands on the site, and preserving these wetlands would be the priority.

c. Restore any wetlands or buffer impacted or lost temporarily; and

No temporary impacts to wetlands are proposed except for along the edge of Wetlands A and C where the newly created wetland area will be constructed. Some temporary buffer impacts will occur from the construction of the stormwater outfall and along the edge of the buffers. These areas will be fully restored following construction and replanted with native trees and shrubs.

d. Compensate for any permanent wetland or buffer impacts by one of the following methods:

i. Restoring a former wetland and provide buffers at a site once exhibiting wetland characteristics to compensate for wetlands lost:

This is not applicable to this site as no historic wetlands are located on the property to restore.

ii. Creating new wetlands and buffers for those lost: and

A total of 9334sf of wetland will be filled.

As described in Code; "Any applicant proposing to alter wetlands may propose to restore wetlands or create new wetlands, with priority first for on-site restoration or creation and then second, within the drainage basin, in order to compensate for wetland losses. Restoration activities must include restoring lost hydrologic, water quality and biologic functions". Additionally, Code states "Where feasible, created or restored wetlands shall be a higher category than the altered wetland. In no cases shall they be lower".

Code Specifies the following mitigation ratios for wetland impacts;

i. RATIOS FOR WETLANDS CREATION OR RESTORATION:		
Wetland Category	Vegetation Type	Creation/Restoration Ratio
Category 1	Forested	6 times the area altered.
	Scrub-shrub	3 times the area altered.
	Emergent	2 times the area altered.
Category 2	Forested	3 times the area altered.
	Scrub-shrub	2 times the area altered.
	Emergent	1.5 times the area altered.
Category 3	Forested	1.5 times the area altered.
	Scrub-shrub	1.5 times the area altered.
	Emergent	1.5 times the area altered.

The following table outlines the wetlands to be filled and the required wetland creation using the City of Renton mitigation ratios:

Wetland	Size	Category	Vegetation Type	Ratio	Required Wetland Creation
D	7671sf	2	Forested	3:1	23013sf
E	68sf	3	scrub-shrub	1.5:1	102sf
F	1595sf	3	scrub-shrub	1.5:1	2393sf
Total Creation					25508sf

As required by Code, we are proposing to create 25,508sf of wetland. This wetland will all be Category 2 wetland.

Proposed Wetland Mitigation location rationale.

Given the configuration, topography, hydrology and character of the site, the available wetland mitigation areas are limited by

1. Where sufficient hydrology exists
2. Where enough area exists without extending a buffer onto off-site areas.
3. Where it makes the most sense to create a wetland that doesn't leave an isolated, low function wetland.

If any area of the site except the eastern side of the site were selected we would be creating a wetland that would be surrounded by development, and therefore isolated from other open space areas. This creates a functionally isolated feature that will not provide suitable wildlife habitat or support for many species. Additionally, there are no areas on the site, except along the eastern portion near Wetlands A, B or C that have suitable groundwater elevations to support creation of a wetland. For example, if we were to attempt to leave Wetland D intact, and do creation around this wetland, it's likely there would not be suitable wetland hydrology to support this wetland. Wetland D is an isolated feature that appears to be perched on an impervious hardpan, that allows water to sit long enough to create wetland conditions. This wetland, as well as Wetlands E and F do not appear to be intersecting a surficial groundwater system as does Wetlands A-C. As a result, creation in these areas in and around Wetlands D, E and F would most likely lead to areas that would not successfully create wetland hydrologic conditions.

Ideally, as is typically done in most wetland mitigation projects that are successful, expansion of an existing wetland with sufficient hydrology is utilized to create additional wetland. This consists of taking the edge of an existing wetland or wetlands, and by grading back from the edge of the wetland and creating grades similar to the wetland, interception the surficial groundwater table allows creation of wetland hydrologic conditions. This is what we are proposing to do in the area between Wetlands A and C. Based upon our hydrologic monitoring, these wetlands appear to have suitable hydrology for creation of wetland between them.

As is typical in this type of creation, and also unavoidable, the excavation and creation must occur within the existing buffer of the wetlands. However, as is shown on our plan, we now move the buffer to the edge of the creation area, thus maintaining the required buffer on the new enlarged wetland.

It should also be pointed out that most of the area between Wetland A and C proposed as a mitigation area has been historically disturbed by past mining and clearing activities. We have specifically tried to avoid the larger grove of conifers located in the buffer of Wetland B to preserve this higher quality habitat.

6. *Wetland Mitigation Plan shall include the following additional items:*

a. *Sufficient area for replacement ratios*

As depicted in the Table above, and on the attached Conceptual Mitigation Plan, we are meeting the ratios of mitigation required by Code.

b. *Planting scheme for wetland recreation and buffer enhancement areas*

At this point in time, it is premature to prepare a detailed planting scheme. Once the concept is approved, and the grading plan completed, we will prepare a plan that depicts the location of the native trees, shrubs and emergent plants to be installed, as well as the habitat features such as large woody debris (LWD) and snags. However, we would expect to include the following species within the created wetland and buffer areas; Douglas fir, western red cedar, sitka spruce, big leaf maple, Pacific willow, cascara, western crabapple, red osier dogwood, sitka willow, salmonberry, nootka rose, clustered rose, twinberry, Indian plum, hazelnut, black hawthorne, red elderberry, vine maple, slough sedge, small fruited bulrush, and other species.

c. *A complete description of the structure and functional relationships sought in the new wetland*

As previously described, the new created wetland will create a larger combined Category 2 wetland by connecting Wetland A and C. This will result in a wetland that will include several hydrologic regimes including seasonally flooded and saturated areas. In addition, several types of plant communities will be present based upon hydrologic conditions. The created wetland will have a mix of hydrologic and vegetation characteristics which will provide a greater variety of wildlife habitats and opportunities for wildlife. The placement of LWD and snags will create habitat features that do not currently exist within this area.

d. *A description of the author's experience in restoring or creating wetlands*

I have worked on hundreds of wetland mitigation projects throughout Washington State and the Pacific Northwest as well as in Ohio, New England and in Georgia since 1990. I have worked on small projects as well as large complex projects and have designed wetlands with a variety of hydrologic regimes, including numerous with slope type characteristics as presented here that have been very successful. I am very aware of the criteria needed to successfully create wetlands that replace and exceed the functions lost by the filling of the wetland they are meant to mitigate.

I am highly confident the proposed Fieldbrook Commons mitigation plan will be successful as we have described it.

- e. An analysis of the likelihood of success and persistence based on ground water supply, flow patterns, etc.*

As previously described above as well as described below, we have been monitoring the levels of groundwater within the proposed creation areas. The monitoring results within the first month of the growing season show the water table within 24" of the existing soil surface in the proposed creation area. We are aware that currently, groundwater within Wetland A seeps subsurface in a northerly direction through the upland area between Wetlands A and C at a depth between 18"-24". Our goal within this creation area is to maintain that same hydrologic contour within the soil profile, but to remove enough of the surface soils to bring water within 12" of the surface to create wetland hydrology conditions.

- 7. An analysis of impact on hydrology of the existing wetlands A and C after the additional creation of a new wetland adjacent. Would the creation of the new wetland change the categorization of the existing wetlands? In turn changing the buffer size?*

As previously stated, we are currently monitoring the hydrology of the area between Wetlands A and C to determine final grades of the creation area. It is probable, given the slight difference in elevation between Wetland A and C (approximately 12"), a portion of the creation area will be a "slope type" wetland. The grade between these two existing wetlands in the creation area will be determined based upon groundwater elevations we determine from our monitoring. Based upon those findings, the sloping portion of the wetland creation area will be a portion of the wetland that will have primarily saturated soils with no surface water. This will allow a slow migration of water through the soil profile from the south to the north through the creation area. This is currently occurring already in the upland area between Wetland A and C. However, it is at a depth >12" which differentiates it from an area that would be considered wetland. A portion of the surface soils will be removed that will bring this saturated soil zone within 12" of the surface meeting wetland hydrology criteria. This should have no impact on the wetland hydrology of either Wetlands A or C. The water we will be intercepting exists within the soil profile in the proposed creation area. We will be removing soil from this area to bring this hydrology closer to the surface, and in portions on the surface of the creation area.

We will also be directing clean roof water from the proposed development within the contributing basin, to the edge of the buffer in level spreaders to maintain the hydrologic patterns of the site.

Connecting Wetland A, a Category 2 wetland, to Wetland C, a Category 3 wetland, will result in Wetland C now being considered a Category 2 wetland. As a result a 50' standard buffer would be required on Wetland C now, and that is what we are providing as depicted on the attached plan.

- 8. Address review criteria of 4-3-050M6.f (i-vii) for buffer averaging.*

i. That the wetland contains variations in ecological sensitivity or there are existing physical improvements in or near the wetland and buffer; and

The proposed buffer averaging in the reduced areas will be within areas that have sufficient dense, native vegetation to maintain the function of the wetlands and protect these wetlands. The portions of the wetlands closest to these reduced areas are not unique or have any sensitive characteristics that would make them susceptible to impact.

ii. That width averaging will not adversely impact the wetland function and values; and

The proposed averaging will not impact the functions or character of these wetlands in this area. The area of the reusltion is in low impact parking areas and will generally not have heavy use such as living or recreational areas.

iii. That the total area contained within the wetland buffer after averaging is no less than that contained within the required standard buffer prior to averaging; and

The proposed averaging will result in a reduction of 2,135sf of buffer, but with a subsuquent addtioon of 4,787sf of buffer, resulting in a net gain of 2,652sf of buffer.

iv. A site specific evaluation and documentation of buffer adequacy based upon The Science of Wetland Buffers and Its Implications for the Management of Wetlands, McMillan 2000, or similar approaches have been conducted. The proposed buffer standard is based on consideration of the best available science as described in WAC 365-195-905; or where there is an absence of valid scientific information, the steps in RMC 4-9-250F are followed.

The proposed buffer averaging and buffer widths follow the City requirements as specified in the code. The document cited above is a document that was put together to give jurisdictions some guidance on determining standard buffer widths to include in their regulations. It does not appear an appropriate citation or document to be using in this contex as standard buffer widths have been decided and adopted as Code.

v. In no instance shall the buffer width be reduced by more than fifty percent (50%) of the standard buffer or be less than twenty five feet (25') wide. Greater buffer width reductions require review as a variance per subsection N3 of this Section and RMC 4-9-250B; and

The standard buffer on the wetlands being averaged is 50'. There are two areas of buffer reduction within the averaging plan, onf that reduces the width to 28.5', and a second to 34'. Botht of these areas are >50% of the standard buffer widtha nd meet this criteria.

vi. Buffer enhancement in the areas where the buffer is reduced shall be required on a case-by-case basis where appropriate to site conditions, wetland sensitivity, and proposed land development characteristics.

The buffer in the areas of the reduction is densely planted with native vegetation. There is no need to enhance these buffer areas.

vii. Notification may be required pursuant to subsection F8 of this Section.

Notification, if required will be done.

9. Please included the trial in the design addressing all portions of OTAK's report on trail impacts to the wetlands.

As required by the City, we have included a trail through the wetland buffer. This trail will be a soft surface wood chip trail that passes through the middle of the buffer area between Wetlands C and B. The

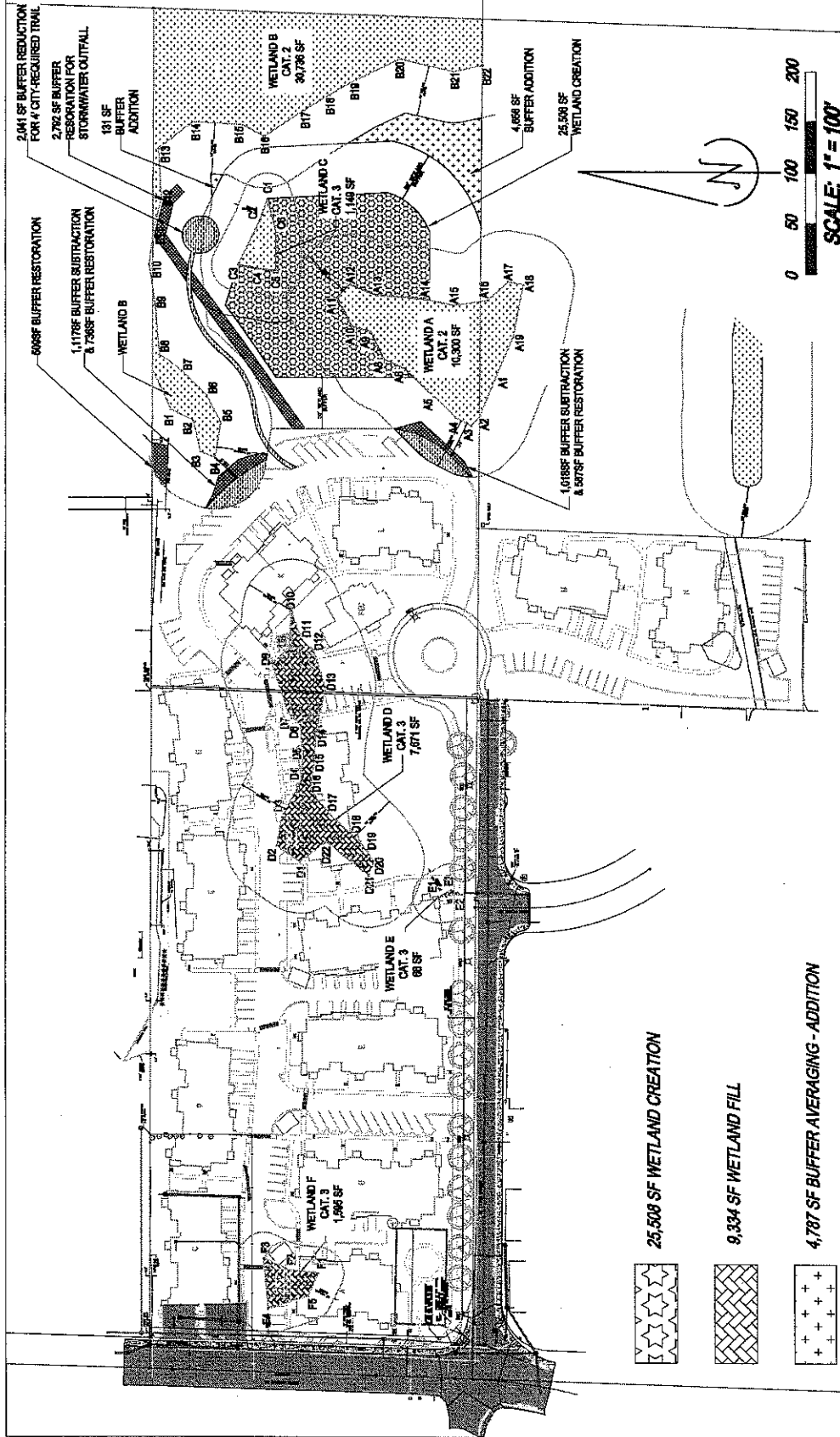
If you have any questions or require any additional information please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetland Ecologist PWS #212

Attached: Revised Conceptual Mitigation Plan



Note: Base map provided by D.R. Strong based upon survey of Sewart Wetland Consulting Wetland Delineation.

	Sewart Wetland Consulting, Inc. Ecological Services 27641 Covington Way SE/2 Covington, WA 98042 253-859-0315 Fax 253-852-4732
JOB# 11-121	DATE DEC. 2011
DRAWN BY: ES	SCALE: 1"=100'
REVISED: MAR. 2012	DESIGNER: TS
FIELDWORK COMMONS PNW HOLDINGS, LLC	CONCEPT DELINEATION MAP
APRIL 2012	

Technical Memorandum



10230 NE Points Drive
Suite 400
Kirkland, WA 98033
Phone (425) 822-4446
Fax (425) 827-9577

To: Vanessa Dolbee, Senior Planner, City of Renton
Department of Community and Economic
Development
From: Stephanie Smith, Wetland Biologist
Kevin O'Brien, Senior Wildlife Biologist
Copies:
Date: June 13, 2012
Subject: Fieldbrook Commons Second Review
Project No.: 31989B

As requested by the City of Renton (City), Otak biologists have previously conducted a site visit and provided a review of documents provided by the City related to the proposed Fieldbrook Commons project for compliance with City of Renton Critical Areas Ordinances. Otak provided the City with a review memorandum dated February 29, 2012. This second review is in response to the comments and changes provided by the applicant's biologist as outlined in Otak's February review. The applicant's biologist has provided a detailed outline addressing many of the recommendations brought forth by Otak as well as a revised concept delineation map and wetland delineation map.

Introduction

A wetland delineation was conducted in April 2011 by the applicant's biologist that identified a total of six wetlands on the project site, which include: three Category II wetlands (Wetlands A, B, and D) and three Category III wetlands (Wetlands C, E, and F). The project site consists of three parcels (2923059168, 2923059022, and 29230599023). Two of the parcels create a long, narrow corridor east to west and the third parcel extends to the south to make the project site somewhat "T" shaped. The smallest parcel (2923059168), in the northwest corner of the project area, previously had a fire station on the property. The building has since been demolished, leaving the property vacant but for paved parking areas, gravel, and overgrown landscaping. The other two parcels that make up the project area are forested with some evidence of past use, including dilapidated buildings and adjacent mine tailings.

The project proposes to fill three wetlands (approximately 9,334 square feet) and provide compensatory mitigation onsite by creating approximately 25,508 square feet of wetland habitat. The proposed wetland mitigation area is located within the buffers of the existing wetlands on site that are not proposed to be filled.

EXHIBIT 25

This memorandum outlines general background information, findings of the review responses, and additional recommendations. Specifically, this memorandum provides review, comment, and recommendations for the documents and exhibits indicated below:

Documents Reviewed

- Fieldbrook Critical Areas Review Response – LUA12-001, response to City comments (dated April 10, 2012) by Sewall Wetland Consulting, Inc.;
- Fieldbrook Critical Areas Review Response with revised Mitigation Plan, response to Otak comments (dated March 16, 2012) by Sewall Wetland Consulting, Inc.;
- Fieldbrook Commons Concept Delineation Map – 11x17 and full size (dated April 2012, revision) by Sewall Wetland Consulting, Inc.
- Fieldbrook Commons Wetland Delineation Map – 11x17 only (dated March 2012, revision) by Sewall Wetland Consulting, Inc.

Background Information Sources

- City of Renton Municipal Code (RMC) accessed from:
<http://www.codepublishing.com/wa/renton/> (Referred to in this memorandum as *RMC*)

Response to Fieldbrook Critical Areas Review Response, dated March 16, 2012 by Sewall Wetland Consulting, Inc.

Sewall Wetland Consulting comments are indicated in italics, below.

Otak response comments are indicated in bold, below.

Underlined lettering below indicates further action needed or if the recommended action has been appropriately addressed.

2.a. Offsite Wetlands: *As requested, we investigated the off-site wetland area identified by OTAK. It appears to be a linear extension of Wetland B. We measured the distance of this wetland to the eastern property line of the site and it was 55'. As this distance appears to be a part of Wetland B, this would also be a Category 2 wetland with a 50' buffer. This buffer would not extend onto the site.*

The applicant has appropriately identified and addressed the offsite wetland in the response memorandum and also by including the approximate location of the wetland and its buffer on the wetland delineation map.

This action item has been appropriately addressed.

2.b. Wetland and Buffer Functions:

The applicant's biologist copied the recommendation to include a table into the response memo, but did not provide a table that compares existing and proposed wetland and buffer

functions and values (including the low, moderate, and high ratings) using the Ecology methodology.

The recommendation for wetland functions was appropriately addressed later in the document (1.4.3.2). We recommend that the applicant submit the ratings forms in order for the City to provide concurrence with the analysis, and to verify the functional lift associated with the proposed wetland conditions. However, no assessment of wetland buffer functions and values was provided. We recommend an explicit assessment of existing and proposed buffer functions to demonstrate that the proposed mitigation will achieve functional equivalency—particularly as the proposed project will remove existing forested buffer and replace that habitat with created wetland.

2.c. Maps: *Maps contain scales and notes are legible in the copies provided to the City.*

The full size map provided to the City and forwarded on to Otak contains scale bars and notes are legible. The 11x17 maps provided to the City and forwarded on to Otak do not contain scale bars and are not legible at half-size.

Future submittals should include full scale maps with scale bars and legible notes. This action item is adequate for this review.

2.d. Wetland B Buffer Encroachment: *The area will be restored by removing the fence and replanting with native trees and shrubs.*

In addition to removing the dilapidated fence and replanting the encroached area with native trees and/or shrubs, the buffer will need to have a split rail fence installed to prevent future intrusion.

This recommended action is sufficient for this review; the final wetland mitigation plan should include fencing in this area.

2.e. Tree Retention: *It is impossible to fill any wetland that has trees and not remove them. Trees within the filled wetland will be removed. However, the proposed mitigation plantings replaces these trees with many more trees than will be removed. The areas of clearing within existing buffer of Wetland A for expansion of the wetland will also have trees removed. However, all of the new wetland and buffer will be planted with a dense planting of native trees and shrubs.*

It is understood that tree removal will be required in order to fill wetlands and buffers as well as grade the area for wetland creation. However, this comment was provided in order to highlight the importance of a high functioning buffer. While many more trees will be planted, it is the existing forested canopy that is providing the function. Small trees, recently installed will not provide the same functions for up to 20 or 30 years or more. Through the revised wetland mitigation plan the forested buffer of Wetland B will be preserved. Some forested buffer areas and the functions they provide will still be impacted, but at a slightly lower level of function.

This recommended action has been appropriately addressed at this time. The City and City biologist will review the tree removal and land clearing plan when submitted by the applicant.

2.f.1 Mitigation Memo and Mitigation Plan Sheets: The March 16, 2012 memo from Sewall Wetland Consulting addressed a number of issues and provided numerous comments under the 2.f.1 heading. This memo addresses these comments below:

The revised mitigation plan will not impact the buffer of Wetland B which is high functioning. Instead the new plan proposed creating wetland between Wetlands A and C and converting moderate function buffer to wetland, and then move the buffer to the edge of the newly created wetland. No loss of buffer function will occur as the same 50' buffer will be utilized on the new wetland creation area.

The project proposes to convert existing buffer for Wetlands A and C to created wetland. Per the response to 2.b above, an assessment of existing buffer function and proposed buffer function should be conducted by the applicant, in order to demonstrate that no net loss of wetland buffer function will occur as a result of the project.

We recommend an explicit assessment of existing and proposed buffer functions to demonstrate that the proposed mitigation will achieve functional equivalency—particularly as the proposed project will remove existing forested buffer and replace that habitat with created wetland.

The final mitigation plan will depict NGPA areas as well as specific locations of signs and fencing.
This recommended action has been appropriately addressed.

Using the WADOE Wetland rating systems which is based on 3 major recognized wetland functions, Wetland D scored 33 points, indicating a Category 3 wetland which also indicates low-moderate overall functional value. Wetlands E & F scored 25 and 29 points, respectively. This indicates low function Category 4 wetlands. As seen in Table 1 below, a substantial functional lift will be attained from the connection of Wetlands A and C with 25,508 sf of additional wetland over the existing functions of the proposed fill wetlands. The newly created wetland will connect to existing Category 3 wetlands (Wetlands A and C) and provide enough lift that this wetland will now be considered a Category 2 wetland under the WADOE rating system. This is a substantial lift in function, surface water storage and species richness over the proposed low value Category 3 and 4 fill wetlands.

We recommend that the applicant submit the ratings forms in order for the City to provide concurrence with the analysis, and to verify the functional lift associated with the proposed conditions. A revised and updated critical areas report, including the ratings forms, is an appropriate vehicle to do so, or submittal of the ratings forms as a critical areas report addendum.

This (location and direction of proposed illumination out of and away from the wetland and buffer areas to protect buffer functions) will be noted on site plans for portions of the development abutting the wetland and buffer areas.

This recommended action has been appropriately addressed at this time. The City and City biologist will review the site plans when submitted by the applicant.

Currently we are monitoring groundwater within 6 wells within the new proposed wetland creation area between wetlands A and C. Current readings indicate groundwater is at a depth from 16"-28" below the surface. We will continue to monitor these points into April to develop an appropriate grading plan to create wetland conditions within the mitigation area.

The 2' elevation difference between Wetlands A & C will be considered when we prepare a final grading plan based upon groundwater elevations. It's possible that a small portion of the created wetland may have slope wetland characteristics. We have employed this type of grading in several wetland mitigation projects successfully. However, this will depend upon our findings of our hydrology monitoring which is currently being conducted.

Two months of hydrology monitoring in a single year is a very small sample size on which to base wetland hydrology design. Project timing constraints, however, are understood to pertain.

This recommended action has been appropriately addressed at this time. The City will request review of the hydrology monitoring protocols, data, and data analysis as this information becomes available.

The use of a berm in this area (to prevent surface water draining from the proposed created wetland into Wetland B) if used, will be constructed of a soil material that will be an impediment to water passing through the berm through the use of a barrier such as clay.

This recommended action is currently sufficient; however, the City may require further mitigation plan changes based on future design options and elements.

No impacts or excavation in the area of Wetland B are proposed at this time.

This recommended action is currently sufficient; however, the City may require further mitigation plan changes based on future design options and elements.

Grass seed will be eliminated from the planting plan. Use of chips or mulch will be utilized instead.

Grass seed provision will be removed from the planting plan and arborist mulch will be used instead.

This recommended action has been appropriately addressed.

2.f.5. The performance standards have been revised and included in the revised conceptual wetland mitigation plan. Further recommendations regarding the performance standards are included below in a separate review of the document.

2.f.6. Trails: *The trail was requested by the City. It has been removed from the plan so there will be no trail impacts.*

The trail has been relocated to the wetland buffer per April 10, 2012 revised Conceptual Delineation Map. Per RMC 4-3-050C7.a.i(2), "trails and walkways shall be located in the outer 25% of the buffer."

We recommend a design realignment of the trail to comply with the RMC allowed use of this feature in the outer 25% of the buffer.

2.f.7. Grading Plans: *The plan has been revised to eliminate any connection to Wetland B. The plan will connect Wetlands A and C through the minimum grading required for the required wetland creation area. This will be based upon the results of our hydrology monitoring which started March 12, 2012. When we have sufficient early growing season hydrology data the grading plans for the mitigation area will be prepared. We anticipate that to be near the end of April-middle of May.*

Two months of hydrology monitoring in a single year is a very small sample size on which to base wetland hydrology design. Project timing constraints, however, are understood to pertain.

This recommended action has been appropriately addressed at this time. The City will request review of the grading plan, and the hydrology monitoring protocols, data, and data analysis as this information becomes available.

2.f.8. Storm Pond: *The storm pond has been eliminated from the project and a buried vault will be utilized outside of the wetlands and associated buffers.*

A stormwater outfall is located on the Concept Delineation Map.

If available, provide additional information regarding stormwater outfall design, anticipated stormwater volumes, and how the adjacent wetlands and buffers (particularly Wetland B) will be protected from potential impacts regarding the outlet location (e.g. How will the hydroperiod of Wetland B be affected?). At a minimum, a conceptual description of the stormwater outfall, the extent of its service area, proposed vault volume and sizing criteria, proposed discharge structure, proposed stormwater fate after discharge (infiltration, sheet flow through buffers to created wetlands and/or to Wetland B), and its potential impacts to wetlands and buffers should be provided.

2.f.9. Permits: *When the City accepts the Conceptual Mitigation Plan, we can then prepare a Final Detailed Plan which would be suitable for submittal for a Nationwide Permit from the Army Corps of Engineers, as well as to WSDOE for 401 Water Quality Certification. It is premature to submit for these permits at this time as the required documents (Final mitigation plan and reports) have not been prepared.*

Final mitigation plan designs may undergo changes, possibly significant, based on responses from the Corps and/or Ecology. Development of a final mitigation plan in a coordinated fashion with the Corps and/or Ecology may minimize future design alterations. This recommended action has been appropriately addressed at this time.

2.f.10. Long Term Monitoring: *City of Renton Code requires monitoring and bonding of wetland mitigation project for five years. Although it is likely that the Corps and WADOE may require 10 years of monitoring, the plan to be submitted to the City will meet the City Code of 5 years of mentoring. Hydrology monitoring of the creation area will be a component.*

An effective mitigation plan could be developed for a five-year period and a ten-year period, with the performance standards and monitoring events for a ten-year effort triggered if the Corps/Ecology ten year monitoring standard it imposed.

If 10 years of monitoring are required, an addendum to the wetland mitigation plan will be prepared to address the Corps requirements.

2.g. Buffers: *In order to minimize impacts to the wetland and buffers, the formerly proposed storm pond has been removed and replaced with a much more expensive vault outside the wetland and buffers.*

The replacement of the proposed storm pond with a vault as a potential means of minimizing impacts to wetlands and buffers is acknowledged, but additional information would validate that minimization effort.

Please see response for 2.f.8 above for additional information on vault and stormwater outfall design and impacts to wetland and buffers.

The trail has also been removed from the wetland and buffers.

The trail has been relocated to the wetland buffer per April 10, 2012 revised Conceptual Delineation Map.

The trail has been relocated to the wetland buffer per April 10, 2012 revised Conceptual Delineation Map. Per RMC 4-3-050C7.a.i(2), "trails and walkways shall be located in the outer 25% of the buffer."

We recommend a design realignment of the trail to comply with the RMC allowed use of this feature in the outer 25% of the buffer.

The previous mitigation proposed in the high functioning, conifer dominated buffer of Wetland B has been removed from the plan. Now all the mitigation/wetland creation is to occur between Wetlands A and C. Both of these wetlands are isolated and not associated with the larger Wetland B.

The proposed area for the creation is deciduous forest comprised of scattered big leaf maple, a single cottonwood, and understory of vine maple, elderberry, blackberry and Indian plum. This area has had past disturbances from mining and contains existing disturbed areas as well as some trash and debris. Portions also include a large man-made berm that is comprised of peat and coal tailings. Preliminary hydrology monitoring reveals groundwater at depths between 12"-28" of the surface within the proposed creation area. Soils in this area are gravelly loams on the surface with tighter clay soils beneath. Wetland creation in these types of soils is typically very successful. The proposed work in the buffers of these wetlands to create over 25,000 sf of additional wetland area will not remove pristine buffer.

Additionally, the newly created wetland edge will then have a 50' buffer of existing forest to protect the resource. Any buffer area disturbed during creation of the mitigation project will be restored with native tree and shrub species. All

the large trees removed from the buffer and the grading of the wetland creation area will be utilized as habitat features (snags and large woody debris) within the wetland and buffer mitigation area.

Existing forested buffer habitat occurs on the project property, surrounding the onsite wetlands and providing buffer functions, with buffer widths substantially greater than 50 feet.

We recommend an explicit assessment of existing and proposed buffer functions to demonstrate that the proposed mitigation will achieve functional equivalency—particularly as the proposed project will remove existing forested buffer and replace that habitat with created wetland.

Comments Regarding Revised Conceptual Mitigation Plan attached to Fieldbrook Critical Areas Review Response Memo (March 16, 2012)

A final wetland mitigation plan and report will be forthcoming at a future date. These comments address the specific sections of the conceptual mitigation section in the memo dated March 16, 2012.

General Comments:

- Remove residual language from previous reports, in particular, all references to the County (Sections 3.7, 3.8, 3.10, 5.4, 7.2). Either City staff and/or agency (Corps and/or Ecology) staff will be project contacts.
- All portions of the wetland mitigation plan that pertains to the site preparation and conditions, plant installation, schedule, and warranty etc. should be included on a plan sheet for project bid and work reference purposes.

3.0. Construction Sequence

3.9. Monitoring: Add caveat that 10 years of monitoring may be required if the Corps takes jurisdiction.

4.0. Construction and Planting Notes

4.1.3. Sentence should read “The Landscape Contractor will hand grub all non-native, invasive plant species onsite, including the removal of root crowns. These species may include, but are not limited to Himalayan blackberry, evergreen blackberry, English ivy, and English holly.” Trailing blackberry, a native species in the Pacific Northwest, should **not** be removed. Additionally, provide details regarding **how** the invasive species should be removed so as to not damage the desirable native species, and specify that the applicant’s biologist shall oversee weeding of the buffer addition planting areas.

4.2.3. No balled and burlapped or bare root plant stock should be used. Container stock only.

4.3.3. Planting Pits: Revise the section to specify that the planting pit shall not be deeper than the root ball. Plants should be installed according to

<http://www.soundnativeplants.com/PDF/plantingt看tips.pdf>.

4.4.2. All disturbed areas will be protected with **arborist mulch to a minimum depth of six inches**. As stated previously, grass seed should not be applied around newly installed plants.

5.0. Maintenance Program

5.1.3.a. The use of glyphosphate herbicide should be a last resort. The removal of stems and root crowns is more effective. Add a caveat that herbicide must be applied by an appropriately licensed individual.

5.3. Watering should still take place during the first spring and summer after planting, even if planting occurs between October and March 15th.

6.0. Wetland and Buffer Monitoring Program

- To be consistent with guidance from the U.S. Army Corps of Engineers and Washington State Department of Ecology, revise the “6.1 Sampling Methodology” section to specify that Year 1 monitoring will occur in the growing season after the plants have been installed for at least one calendar year. In other words, if the plants are installed in fall 2012 or spring 2013, Year 1 monitoring will occur in August or early September 2014.
- Revise the “6.1.1 Hydrology” section to include specifications for monitoring hydrology in the wetland creation area monthly (at a minimum) from March through May in piezometers per guidance from USACE (<http://el.erdc.usace.army.mil/elpubs/pdf/twrap00-2.pdf>). The use of staff/crest gauges will not provide useful data if the water is below the ground surface.
- Revise the “Vegetation” section to specify that annual vegetation monitoring will occur in late summer (August or early September). In addition to data specified in this section, sample plot data shall include: plant species present; count of surviving installed plants; general health and condition of installed plans; and presence and percent cover by individual non-native invasive species.
- Revise the “6.1.2 Vegetation” section to include **rectangular or square** (not transects) monitoring plots that represents approximately ten percent of the installed vegetation areas and adequately represents the wetland creation and buffer enhancement areas. The permanent monitoring plots should also reasonably represent the plant communities to be established. All four corners of each plot should be staked with metal fence posts or tall re-bar and marked with flagging. Revise the paragraph regarding photo points to include photos at a consistent corner of each monitoring plot as well as overview photo points.
- Add a section to specify that that during the annual monitoring visit (during the first two years), flagging or markers will be replaced as necessary on each of the originally installed or replacement plants to distinguish them from volunteers. If flagging is used, it must be attached to side branches, not central leaders, and it must be attached in a manner such that it does not

restrict growth or girdle the plants. Old flagging should be checked to see if it is restricting growth.

6.2. Standards of Success:

1.b. Add caveat that only **installed** plants can be counted towards satisfying the survival performance standards. Add a performance standard for plant diversity; native volunteers can count towards this performance standard.

1.c. If only 5 years of monitoring is required per the City, performance standards must address all 5 years.

- A performance standard of 60% cover by woody species in shrub and forested plant communities by Year 3 is ambitious and difficult to achieve, and may be adjusted downward: 30% for the restored buffer during Year 3, 40% during Year 4, and 50% by Year 5
- Performance standards for woody vegetation in the created wetland: 40% cover by Year 3, 50% by Year 4, and 65% by Year 5
- Emergent vegetative cover is likely to be shaded out as woody vegetation establishes. We recommend emergent vegetative cover of 25% by Year 5 to reflect a shrub and forest vegetative community.

Performance Standards for percent cover will be addressed during the review of the final wetland mitigation plan. It is difficult to appropriately address performance standards without a grading plan and plant pallet, and the above recommendations may be subject to change based on review of the grading plan and plant pallet.

1.d. Revise sentence that there should not be more than 10 percent cover of non-native invasive species within the mitigation area **during all monitoring years**. Specify that non-native invasive species include those on the King County Noxious Weed List

<http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/laws/list.aspx>, including the Non-Regulated Noxious Weeds and King County Weeds of Concern.

2. A final delineation of wetland boundaries in Year 5 should be conducted to ensure the appropriately-sized created wetland area has been established.

3. Volunteer native, non-invasive species can only be included as acceptable components of the mitigation performance standards through the percent cover performance standard, not as part of the percent survival.

7.0 Contingency Plan:

7.1. Provide additional information regarding contingency plans if adequate wetland hydrology is not achieved in the wetland creation area.

7.3. Remove residual language from previous reports including references to “irrigating the stream area” and “reseeding stream and buffer areas”.

Response to City Email (Sewell Wetland Consulting document dated April 10, 2012)

Items 1 through 4 were appropriately addressed. The City and City biologist will review the clearing and grading plans when submitted by the applicant.

5a. Given the nature of the project and the site constraints, the issue was appropriately addressed.

5b. The second sentence states, "the project has minimized impacts by avoiding impacts to Wetlands A, B and C and their associated buffers." This is not the case as there will be significant impacts to the buffers of Wetlands A and C in order to combine the two wetlands. Per comments for 2b on page 3 of this memo, an explicit assessment of existing and proposed buffer functions to demonstrate that the proposed mitigation will achieve functional equivalency will provide a rationale for avoidance and minimization of impacts to the wetland buffers.

5c. Issue was appropriately addressed. The City and City biologist will review restoration details as mitigation planning develops.

5d.i. Issue was appropriately addressed.

5d.ii. Project applicant provided appropriate wetland creation ratios for the identified wetland impacts.

6a. Issue was appropriately addressed.

6b. A detailed planting plan will be forthcoming at a future date for review by the City. The City and City biologist will review planting plans upon submittal by the applicant.

6c. It is assumed that the created wetland will provide a seasonally flooded hydrologic regime. The City will request review of the hydrology monitoring protocols, data, and data analysis as this information becomes available.

6d. Issue was appropriately addressed.

6e. Under 6c, it is assumed that there will be seasonally flooded area within the wetland, and 6e states that it is the "goal to maintain the hydrologic contour within the soil profile, but to remove enough of the surface soils to bring water within 12" of the surface to create wetland hydrology conditions." Additionally, without a hydrogeologist conducting a site study, it is the assumption of the applicant's biologist "that groundwater within Wetland A seeps subsurface in a northerly direction through the upland area between Wetlands A and C at a depth between 18"-24"." It is our

best professional judgment and our concern for project success that with marginal hydrology data regarding groundwater levels that these are results are assumptive. As the information becomes available, the City will request review of the hydrology monitoring protocols, data, and data analysis to further evaluate the project feasibility.

7. As stated above, without more hydrologic information and a grading plan, these comments are assumptive. This section is also the first time it has been mentioned that "roof drains will be directed to the edge of the buffer in level spreaders to maintain hydrologic patters (sic) of the site." Provide additional information regarding number of roof drains, assumed volume, and where on the site the flow will be directed. Provide an analysis addressing how this hydrologic input will not affect the hydrologic patterns of the wetlands and buffers.

8i. Issue was appropriately addressed.

8ii. While it is adequate that the buffers are reduced in the proposed areas, it is not the basis of it being a parking lot that makes it low impact vs. high impact living areas that may adversely impact the wetland function and value. Considerations for the "low impact" parking lot include potential for toxic runoff, headlights shining into the wetlands and buffers, and trash being contributed to the buffer. Numerous threats exist for the pedestrian trail being placed in the buffer, including people creating new trails, leaving trash, and causing noise disturbance to wetland birds and animals. While buffer averaging is adequate in the proposed areas, the final wetland mitigation plan should address solutions these issues (ie. installing a split rail fence along the trail).

8iii. Issue was appropriately addressed.

8iv. While the proposed buffer averaging and buffer widths follow the City requirements, the City code still requires the applicant to provide a site specific evaluation and documentation of buffer adequacy (RMC 4-3-050M6.f). Per comments for 2b on page 3 of this memo, an explicit assessment of existing and proposed buffer functions to demonstrate that the proposed mitigation will achieve functional equivalency and would constitute an appropriate evaluation. Per If the McMillan 2000 document is not an appropriate document to reference other Best Available Science documents can be referenced.

8v. Issue was appropriately addressed.

8vi. Some enhancement of the buffer may be necessary near the western and northwestern sections of Wetland B as this area had some disturbance and encroachment from the neighboring properties. Additionally, it is noted on the large plan sheet that the areas adjacent to the buffer subtraction will

also have some buffer restoration due to temporary impacts. All buffer restoration and enhancement components should be included in the final wetland mitigation report and plan sheets.

8vii. Include the notification requirement in the final wetland mitigation plan.

9. Per RMC 4-3-050C7.a.i(2), "trails and walkways shall be located in the outer 25% of the buffer". As previously requested, the applicant must demonstrate that the construction and use of the proposed trail will not degrade wetland or buffer functions and values. Relocate the trail to be in compliance with RMC 4-3-050C7.a.i(2).

Please feel free to contact us if you have any questions.

Regards,

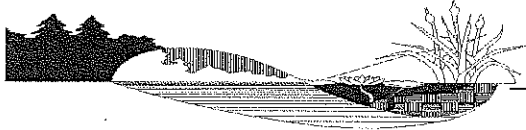
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September 17, 2012

Vanessa Dolbee – Senior Planner
City of Renton
1055 South Grady Way
Renton, Washington 98057

RE: Fieldbrook Critical Areas Review Response – LUA12-001
SWC Job#11-121

Dear Vanessa,

This is a response to the June 13, 2012 OTAK review regarding the Fieldbrook Commons project. Below, listed with the page and paragraph from the OTAK report in italics are the items that were underlined in the OTAK report that required further response from us. After each item we have provided a response;

Page 5 paragraph 1: *“We recommend the applicant submit rating forms in order for the City to concur with the analysis and verify functional lift, we recommend that an explicit assessment of existing proposed buffer functions to demonstrate that the proposed mitigation will achieve functional equivalency”*.

The rating form for the new wetland mitigation area, which includes Wetlands A and C are attached to this report as requested.

The existing buffer of Wetlands A and C that will be impacted consists of an open deciduous forested canopy comprised of big leaf maple, some small western hemlock, as well as an open understory of vine maple, indian plum, Himalayan blackberry and scattered other small shrubs. Several trails, piles of trash and debris, several coal tailing piles, and a small homeless camp is found in this area. This area currently provides some thermal cover to the area around and along the edges of the wetland. It also provides a source of organic material which contributes to the soil composition as well as a source of food to invertebrates utilizing the wetland. The buffer provides some sound reduction from the surrounding residential uses abutting the property. The buffer also provides some barrier to human intrusion. However, the forest is relatively open and sound reduction in this area is not that high. Additionally, the use of the area by local youth on bikes etc. and on and off by homeless has further reduced this function as human use in and around these wetlands appears to occur regularly.

City of Renton
Planning Division
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EXHIBIT 26

Wetland buffers can also act as filters to runoff entering the wetland, acting to clean and filter contaminants from sheet flow into the wetland. This function appears relatively intact.

The proposed wetland creation area will require some conversion of forested buffer to wetland. It will also shift existing upland forest outside of the existing wetland buffers of Wetlands A and C, into the buffer as the edge is expanded. In essence, the buffer remains forested except for portions of the buffer that require grading to connect into the wetland contours. The area to be merged into the buffer is of similar forested character as the existing buffer. The portions that will be graded and be replanted as buffer will have a temporary reduction in some buffer functions in the period (10+ years) it takes the installed tree species to attain a height of approximately 20' or more.

Some of the functions that will increase will be the fact that the wetland and buffer area will be fenced preventing the current type of human intrusion in this area from occurring. The trash and debris within this area will be removed and non-native invasive Himalayan blackberry will be removed and replaced with native species with high values for habitat, thus increasing the species richness within the plant community.

Numerous pieces of large wood will be placed within the wetland and buffer to increase buffer complexity and provide some habitat features currently not existing within this area.

Page 3 paragraph 2: *Future submittals shall include full scale maps with scale bars and legible notes.*

See attached Final Mitigation Plan

Page 4 paragraph 3: redundant to Page 3 paragraph 1 answered on page 1 of this report.

Page 4 paragraph 5: redundant question asking for rating form of new mitigation area.

See attached rating form.

Page 5 paragraph 2: *The city will request review of the hydrology monitoring data and analysis.*

A series of 6 monitoring pits/wells were located within the proposed wetland mitigation area (see attached wetland hydrology monitor point map). These were monitored with weekly site visits from April of 2012-August 2012. At each of these points soil saturation and water table levels were measured to determine what surficial groundwater elevations are, to facilitate designing grades for the new wetland creation area. What we found was that within the proposed creation area, groundwater levels in the early growing

season area between 14" -30" below the existing surface (see table below). It is assumed in the very early growing season (February and March) the groundwater elevations are shallower than the measurements we took, meaning the groundwater elevations are closer to the soil surface.

As shown on the attached Final Mitigation Plan, we utilized these existing groundwater contours to create the new grades for our mitigation site. As can be seen by the grades and associated cross-sections, the grades will remove soil down to the existing groundwater elevations to create wetland areas with soils saturated to the surface for the early growing seasons, to also include flat areas that will hold some shallow 1"-3" of surface water to provide a variety of wetland hydrologic regimes from saturated, to seasonally flooded.

Table 1. Groundwater elevations below surface of hydrology monitoring points 2012

Monitor point & elev.				DATE				
	4/13	4/27	5/11	5/24	6/7	6/28	7/12	8/12
A417.5'	-15	-14	-15	-20	-26	dry	dry	dry
B418'	-17	-16	-16	-22	-27	dry	dry	dry
C417'	-20	-18	-17	-20	-25	dry	dry	dry
D416.5'	-14	-14	-14	-16	-20	dry	dry	dry
E418.5'	-27	-26	-24	-30	-36	dry	dry	dry
F418'	-21	-22	-20	-28	-36	dry	dry	dry

Note: All elevations indicate the elevation of the saturated capillary fringe of soil saturation observed in hydrology monitoring points.

Page 6 paragraph 1: *We recommend a design realignment of the trail to the outer 25% of the buffer to comply with Code.*

The City has requested that a trail be run along the mitigation and wetland areas to create additional public benefit. It is not possible to have a trail of any public value in the outer 25% of the buffer as it would essentially be a trail paralleling the development and within 12 feet of the development. In order to create a trail that will allow the public to walk through and view the critical areas on the site, we will need to go closer to the critical areas than the 25% Code allowance. As a compromise, the trail has been placed approximately halfway between all of the wetland areas, essentially splitting the buffer areas. This would allow a trail to pass around and along the majority of the wetland areas. To compensate for the area of the trail in the buffer, additional area has been added to the buffer as compensation.

Page 6 paragraph 3: *Refers to the proposed stormwater outfall and its potential impacts to Wetland B.*

The current stormwater outfall is release to a level spreader near the edge of wetland B. This outfall will release water from the same basin matching closely with existing drainage patterns on the undeveloped site. Wetland B already has a highly fluctuating water table as a result of historic modifications off-site. As a result, fluctuations of surface water (when present) up to 6" are seen in this wetland during storm events in short periods of time. As a result, the plant community in Wetland B generally consists of species tolerant of a highly fluctuating water table such as willows, hardhack and reed canary grass. No change in hydrology or the character of Wetland B is anticipated.

Page 7 paragraph 1: *If ten years of monitoring are required (by WADOE&Corps) an addendum to the mitigation plan will be prepared to address this change.*

The Final Mitigation Plan will be submitted to the Corps and WADOE using the City required 5 years of monitoring. If the Corps requires additional monitoring years, this will be changed to reflect this requirement. The revised Monitoring Plan notes are attached at the end of this report.

Page 8 paragraph 1: redundant requirement to address buffer functions answered on Pages 1 and 2 of this report.

Page 10 paragraph 2: Performance standards for cover will be addressed in review of the final mitigation plan.

See Final Mitigation Plan attached.

If you have any questions or require any additional information please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetland Ecologist PWS #212

Attached: Revised Conceptual Mitigation Plan

1.0 MITIGATION PROJECT OVERVIEW

To compensate for the fill of a 9,334sf Category 2 & 3 wetlands, it is proposed to create 25,508sf of wetland between Wetlands A and C.

2.0 MITIGATION CONCEPT AND GOALS

2.1 Mitigation Concept

The mitigation proposal is to connect Wetlands A and C with an area of 25,508sf of wetland. The wetland creation areas will be densely planted with native vegetation. The use of diverse native plantings are expected to significantly improve the overall function of the wetland and buffer as it will remove dense thickets of exotic blackberry as well as add emergent and shrub plant communities into what is now, a single class forested wetland.

2.2 Mitigation Goals

2.2.1 Create 25,508sf of emergent, scrub shrub and forested wetland.

3.0 CONSTRUCTION SEQUENCE

The construction sequence of this project will be implemented as follows:

- 3.1 Pre-construction meeting
- 3.2 Construction staking
- 3.3 Construction fencing and erosion control
- 3.4 Clearing and grading
- 3.5 Stabilization of mitigation area
- 3.6 Plant material installation
- 3.7 Construction inspection
- 3.8 Agency approval
- 3.9 Monitoring inspection and reporting
- 3.10 Silt fence removal
- 3.11 Project completion

3.1 Pre-construction Meeting

A pre-construction meeting will be held on-site prior to commencement of construction, to include the biologist, the City, and the contractor. The approved plans and specifications will be reviewed to ensure that all parties involved

understand the intent of the construction documents, specifications, site environmental constraints, sequences, and inspection requirements.

3.2 Construction Staking

The limits of clearing and grading near the critical areas will be marked in the field by a licensed professional land surveyor prior to commencement of construction activities.

3.3 Construction Fencing & Erosion Control

All erosion control measures adjacent to the critical areas, including silt fencing and orange construction fencing, will be installed. Erosion control fencing will remain around the mitigation area until clearing, grading and mulch placement are complete in upland areas outside the critical areas.

3.4 Clearing & Grading

Clearing and grading in and near the existing sensitive area will be per the approved Final Mitigation Plans.

3.5 Stabilization of Mitigation Area

All graded areas in the wetland or buffer will be stabilized with mulch upon completion of grading. Orange construction fencing and erosion control fences will be restored (if necessary) and placed around the critical areas.

3.6 Plant Material Installation

All plant material will be planted by hand per detail and Construction and Planting Notes. The Mitigation Plan specifies the required size, species, quantity, and location of plant materials to be installed. The contractor will mulch areas disturbed during the planting process. Upon completion of the planting, the erosion control fencing will be restored and repaired. Plant substitutions or modifications to locations shall be approved in writing by the Owner's biologist prior to installation.

3.7 Construction Inspection

Upon completion of installation, the City's biologist will conduct an inspection to confirm proper implementation of the Mitigation Plan. Any corrections, substitutions or missing items will be identified in a "punch list" for the landscape contractor. Items of particular importance will be soils in pits, pit size, plant species, plant size, mulch around pits, and tree staking.

Upon completion of planting, if installation or materials vary significantly from the Mitigation Plan, the contractor will submit a reproducible "as-built" drawing to the Owner.

3.8 Agency Approval

Following acceptance of the installation by the City, the City biologist should prepare a letter granting approval of the installation.

3.9 Monitoring

The site will be monitored for 5 years to insure the success of the mitigation project. If additional years of monitoring are required by the Corps or WADOE, the plan will be revised to reflect this change.

3.10 Silt Fence Removal

Erosion control fencing adjacent to the mitigation area will remain in place for at least one year, and/or until all areas adjacent to the mitigation area have been stabilized. The City's Biologist may recommend that the fencing remain in place for a longer duration.

4.0 CONSTRUCTION AND PLANTING NOTES

4.1 Site Preparation & Grading

4.1.1 The Landscape Contractor will approve existing conditions of subgrade prior to initiation of any mitigation installation work.

The Landscape Contractor will inform the Owner of any discrepancies between the approved construction document and existing conditions.

4.1.2 The General Contractor will flag the limits of clearing with orange construction fencing and will observe these limits during construction. No natural features or vegetation will be disturbed beyond the designated "limits of clearing".

4.1.3 The Landscape Contractor will hand grub all non-native invasive plant species including the removal of root crowns. These species may include, but are not limited to Himalayan blackberry, evergreen blackberry, English ivy, and English holly. Weed debris will be disposed of off site.

4.1.4 The wetland area will be excavated to the depths shown on the Final Mitigation Grading Plan and brought to final grade with 8" of topsoil. The biologist will be on-site to confirm the grading is acceptable for planting.

4.2 Plant Materials

4.2.1 All plant materials will be as specified in the plant schedule. Only vigorous plants free of defects, diseases and infestation are acceptable for installation.

4.2.2 All plant materials will conform to the standards and size requirements of ANSI Z60.1 "American Standard for Nursery Stock". All plant materials will be native to the northwest, and preferably the Puget Sound Region. Plant materials will be propagated from native stock; no cultivars or horticultural varieties will be allowed. All plant materials will be grown from nursery stock unless otherwise approved.

4.2.3 No balled and burlapped, or bare root plantings will be used. Container stock only.

4.2.4 All plant materials stored on-site longer than two (2) weeks will be organized in rows and maintained by the contractor at no additional cost to the owner. Plant materials temporarily stored will be subject to inspection and approval prior to installation.

4.2.5 Substitution requests must be submitted in writing to the Owner and approved by the Owner's biologist in writing prior to delivery to site.

4.2.6 All plant materials will be dug, packed, transported and handled with care to ensure protection from injury. All plant materials to be stored on site more than 24 hours will be heeled into topsoil or sawdust. Precautionary measures shall be taken to ensure plant materials do not dry out before planting. Wetland plants will be shaded and saturated until time of installation. Immediately after installation the mitigation planting area will be saturated to avoid capillary stress.

4.2.7 The contractor will verify all plant materials, the quantities shown on the planting plan, and the plant schedule. The quantity of plant materials shown on the plan takes precedent over the quantity on the plant list.

4.3 Plant Installation

4.3.1 All plant materials must be inspected prior to installation to verify conformance of the materials with the plant schedule including size, quality and quantity. Any plant or habitat materials deemed unsatisfactory will be rejected.

4.3.2 All plant materials delivered and accepted should be planted immediately as depicted on the mitigation plan. Plant materials not planted within 24 hours will be heeled-in per note 3.2.6. Plant materials stored under temporary conditions will be the sole responsibility of the contractor. Plants will be protected at all times to prevent the root ball from drying out before, during, or after planting.

4.3.3 All planting pits will be circular with vertical sides, and will be sized per detail on the mitigation plan and filled with pit soils approved by the Owner's biologist. Planting pits shall not be deeper than the root ball. If native soils are determined to be unacceptable by the Owner's biologist, pit soils will be amended with Cedar Grove mulch or equivalent.

4.3.4 No fertilizers will be used within the wetland. In buffer areas only, install "Agriform", or equal plant fertilizer to all planting pits as specified by manufacturer. Fertilizers are allowed only below grade in the planting pits in the buffer areas. No sewage sludge fertilizer ("SteerCo" or "Growco") is allowed in the mitigation area.

4.3.5 All containerized plant materials will be removed from their containers carefully to prevent damage to the plant and its roots. Plants removed from their containers will be planted immediately.

4.3.6 All plant materials will be placed as shown on the approved mitigation plan. If the final installation varies from the approved mitigation plan, the contractor will provide a reproducible mylar as-built of the installed conditions. All plant material will be flagged by the contractor.

4.4 Planting Schedule and Warranty

4.4.1 A fall-winter installation schedule (October 1st - March 15th) is preferred for lower mortality rates of new plantings. If plant installation occurs during the spring or summer (March 15th - Oct. 1st) a temporary irrigation system will be required, unless the area can be sufficiently hand-watered.

4.4.2 All disturbed areas will be protected with an arborists mulch to a minimum depth of six inches.

4.4.3 The installer will warrant all plant materials to remain healthy and alive for a period of one year after final acceptance. The installer will replace all dead or unhealthy plant materials per the approved plans and specifications.

4.5 Site Conditions

4.5.1 The installer will coordinate with the Owner and the Owner's biologist for construction scheduling.

4.5.2 Landscape installation will begin after the City acceptance of grading and construction. The Owner will notify the Owner's biologist of acceptance of final grading.

4.5.3 Silt fences will be installed as shown on the approved mitigation grading plans. The installer is responsible for repair and replacement of silt fences disturbed during plant installation. No equipment or soils will be stored inside the silt fences.

4.5.4 After clearing and grading is complete in the mitigation area, exposed soils will be seeded or mulched. Orange construction fence will be placed around the mitigation area to prohibit equipment and personnel in the mitigation area.

4.5.5 Final grading will be based upon soil conditions found during excavation of the mitigation area.

4.5.6 All plant material will be planted with suitable soils per planting details. Soils from planting holes will be spread and smoothed across the mitigation area.

5.0 MAINTENANCE PROGRAM

This maintenance program outlines the program, procedures and goals for mitigation of the stream and buffer impacts at the mitigation site. This maintenance program will be the responsibility of the project owner through the duration of its ownership of the mitigation area, or throughout the duration of the monitoring period, whichever is longer. The maintenance contractor will complete the work as outlined below.

5.1 Maintenance Work Scope

5.1.1 To accomplish the mitigation goals, normal landscaping methods must be modified to include:

- a. No mowing or trimming of ground cover or vegetation in the mitigation area.
- b. No placement of fertilizers in the mitigation area.
- c. No placement of bark mulch or equivalent in the mitigation area, except as noted in the planting details.
- d. No placement of grass clippings, landscape debris, fill or ornamental plant materials in the mitigation area.

5.1.2 Work to be included in each site visit:

- a. Remove all litter including paper, plastic, bottles, construction debris, yard debris, etc.
- b. Remove all blackberry varieties and scotch broom within the mitigation area. All debris is to be removed from site and disposed in an approved landfill.
- c. Repair silt and/or permanent fencing and signage as needed.

5.1.3 Work to be completed on an annual basis includes:

- a. Areas containing Himalayan blackberry should be controlled by hand cutting the blackberry and removing the root crowns. As a last resort, treating the remaining cut stems only with a glyphosphate herbicide such as Roundup or Rodeo (applied by hand, not sprayed) by a licensed applicator can be utilized.
- b. Replace dead or failed plant materials. Replacement plantings are to be of same species, size and location as original plantings. Plantings are to be installed during the dormant period.
- c. Remove tree staking and guy wires from all trees after one year.

5.2 Maintenance Schedule

The Owner will conduct all items listed in the Maintenance Work Scope on an annual basis. Additional work may be required per the Monitoring Report and as approved by the City Biologist. Additional work may include removal of the grasses around each shrub and tree, installation of wood chips at each shrub and tree base, reseeding the mitigation area, re-staking existing trees and erosion control protection.

5.3 Watering Requirements

5.3.1 Watering with a temporary irrigation system will be required during the first spring and summer after the installation. The temporary irrigation system may be removed after the first year providing the plantings are established and acclimated to on-site conditions.

5.4 Close-out of Five-Year Monitoring Program

Upon completion of the monitoring program and acceptance of the wetland mitigation by the City Biologist, the maintenance of the project will be reduced to include removal of litter and debris, repair of perimeter fencing and signage, removal of noxious weeds and undesirable vegetation, and repair of vandalized areas.

6.0 WETLAND AND BUFFER MONITORING PROGRAM

6.1 Sampling Methodology

The created wetlands and their associated buffers will be monitored once per year over a five-year period, starting with the first year after the plants have been installed, and as required by the City. Monitoring will be conducted using the techniques and procedures described below to quantify the survival and relative health and growth of plant material. A monitoring report submitted following each monitoring visit will describe and quantify the status of the mitigation at that time. The monitoring schedule will be determined after the plant installation has been completed. Typically, the first monitoring visit occurs one year after the installation sign-off.

6.1.1 Hydrology

Wetland hydrology will be monitored using four (4) combination staff/crest gauges as well as four hydrology monitoring holes dug each sampling period near the piezometer. These will be located within the restoration area to be placed at the time of the installation sign-off by the biologist. Surface water level or ground water saturation depths will be measured at these stations to determine if wetland hydrology has been successfully attained. As is noted in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), wetland hydrology is defined as inundation or soil saturation (usually within 12" of the surface) during the growing season. The growing season for this area is generally defined as the period between the middle of March and the middle of November. However, plant growth often occurs earlier in the year

and sound professional judgment will be needed to determine when the growing season is taking place at the site. Hydrology will be monitored twice a month from March 1st through May 30th of each year.

Wetland hydrology will be considered successfully created if wetland hydrology is observed inundating or saturating the soil within 12 inches of the surface during the growing season

6.1.2 Vegetation

The vegetation monitoring consists of inspection of the planted material in late summer or early fall (August-September) to determine the health and vigor of the installation, as well as coverage estimates. All the planted material in the wetland and buffer will be inspected during each monitoring visit to determine the level of survival of the installation.

All plants will be inspected and recorded as to whether they are alive or dead based upon the "as-built" in Years 1 & 2. In Years 3-5, coverage estimates will be used to determine success of the vegetation component.

Two (2) transects will be established across the mitigation site within each plant community for a total of 6 transects. Within the emergent plant community coverage of vegetation will be measured with 0.25m rectangular plots. Estimates of coverage percentages will be made within these plots. A total of 10 sample points within the herbaceous/emergent plant community will be randomly located during the installation sign off. At each of these points four samples, one in each quadrant will be taken.

Within the scrub-shrub and forested plant communities 1/100 acre, circular plots will be used. A total of 10 randomly located plots along each transect will be recorded. Within each plot coverage estimates for both emergent and woody species will be recorded.

Photographs of the mitigation area will be taken from 6 photo points to be located during the installation sign off as well as at each permanent monitoring plot. Photographs will be taken at each of the monitoring and included with the monitoring report for each year from these points.

During years 1 & 2 of the monitoring, replacement plants as well as dead plants will be flagged with distinctive flagging to distinguish what plants these are.

6.2 STANDARDS OF SUCCESS

- 1.a Evaluation of the success of the mitigation project will be based upon an 100% survival for all installed planted woody vegetation at the end of year 1.
- 1.b Evaluation of the success of the mitigation project will be based upon an 90% survival for all planted woody vegetation at the end of years 2.
- 1.c Years 3&5- Achieve at least 60% cover of woody species in shrub and forested plant communities by Years 3&4 and 50% cover of emergent species.
- 1.d Not more than 10% cover of non-native invasive species within mitigation area at any time.
2. The wetland mitigation project will create 25,508sf of wetland meeting at least the vegetation and hydrology criteria for a wetland as described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987). The new wetland area will be delineated in Year 5 to establish and insure adequate wetland has been created.
3. Volunteer native, non-invasive species will be included as acceptable components of the mitigation for percent coverage measurements.

7.0 CONTINGENCY PLAN

7.1 A contingency plan can be implemented if necessary. Contingency plans can include regrading, additional plant installation, erosion control, modifications to hydrology, and plant substitutions including type, size, and location.

7.2 Careful attention to maintenance is essential in ensuring that problems do not arise. Should any of the site fail to meet the success criteria, a contingency plan will be developed and implemented with the City approval. Such plans are prepared on a case-by-case basis to reflect the failed mitigation characteristics.

7.3 Contingency/maintenance activities will include, but are not limited to:

-Replacing all plants lost to vandalism, drought, or disease, as necessary.

- Replacing any plant species with a 20 percent or greater mortality rate with the same species or similar species approved by the City Biologist.
- Irrigating the mitigation area only as necessary during dry weather if plants appear to be too dry, with a minimal quantity of water.
- Reseeding wetland and buffer areas with an approved grass mixture as necessary if erosion/sedimentation occurs.
- Removing all trash or undesirable debris from the wetland and buffer areas as necessary.